Drug & Cosmetic INDUSTRY

APRIL, 1950

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FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
HILDA C. McCOLLOM, Art Director

The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer, Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York 1, N. Y., U. S. A.

Business Manager, Frazer V. Sinclair; Advertising Representatives, P. W. Alexander, Walter M. Brauneiss, C. R. Keeley, Dwight H. Early, 100 No. LaSalle St., Chicago 2; Production Manager, Katherine Hyde; Circulation Manager, Harry G. Kelbly.

Subscription price—$3.00 a year, in advance, Foreign Countries, $5.00. Single copies, 35c; Back issues, 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879. Member of Audit Bureau of Circulations.

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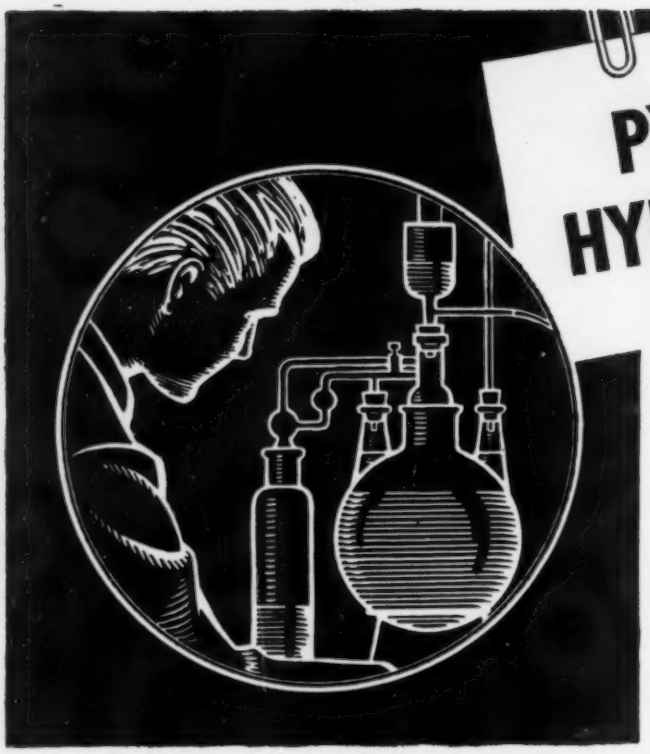

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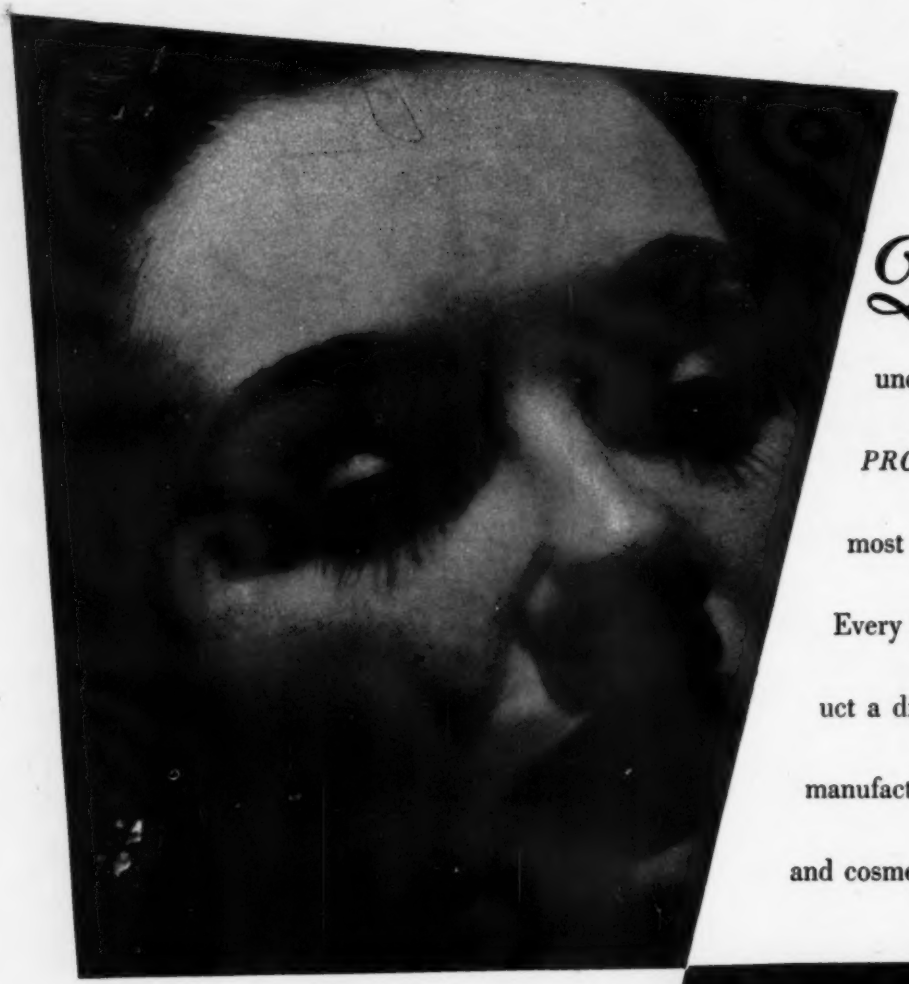

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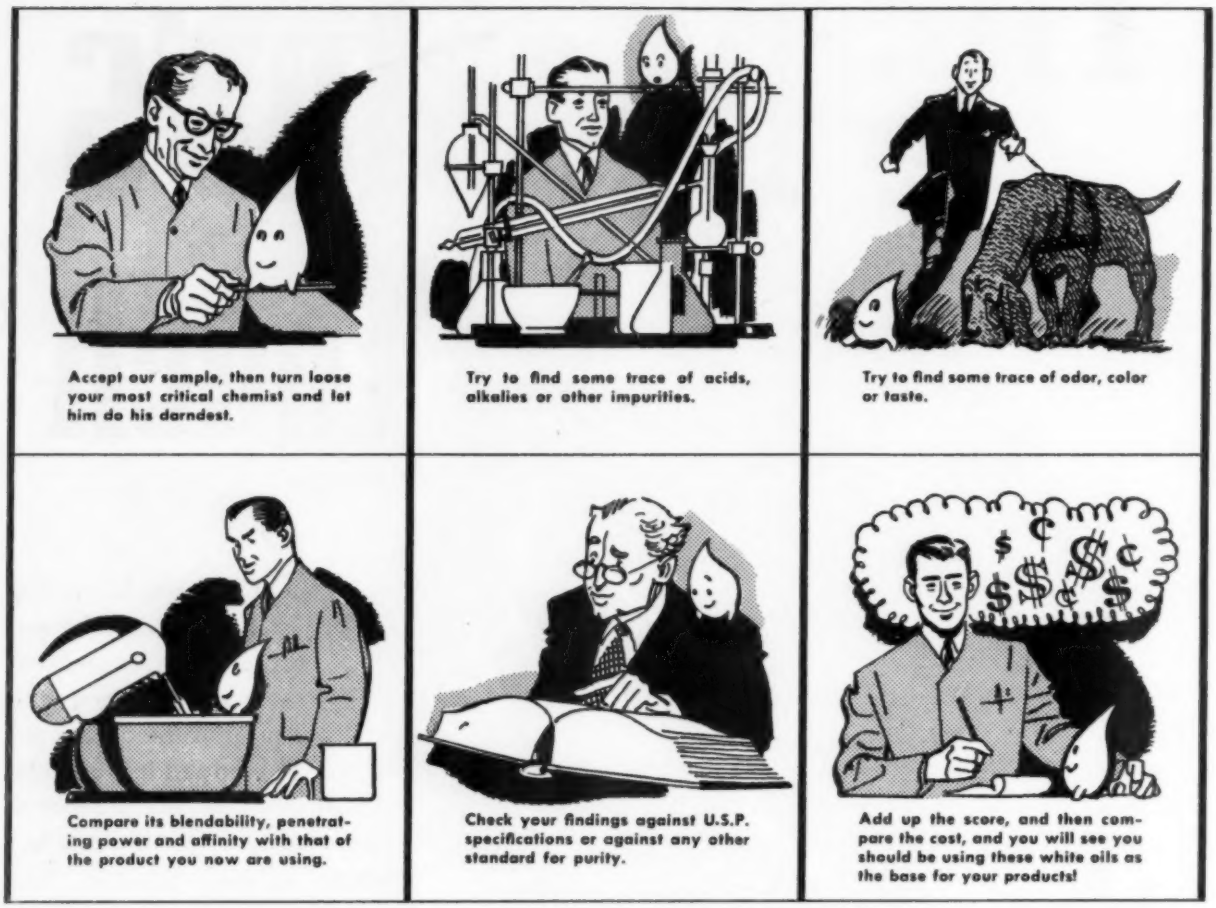
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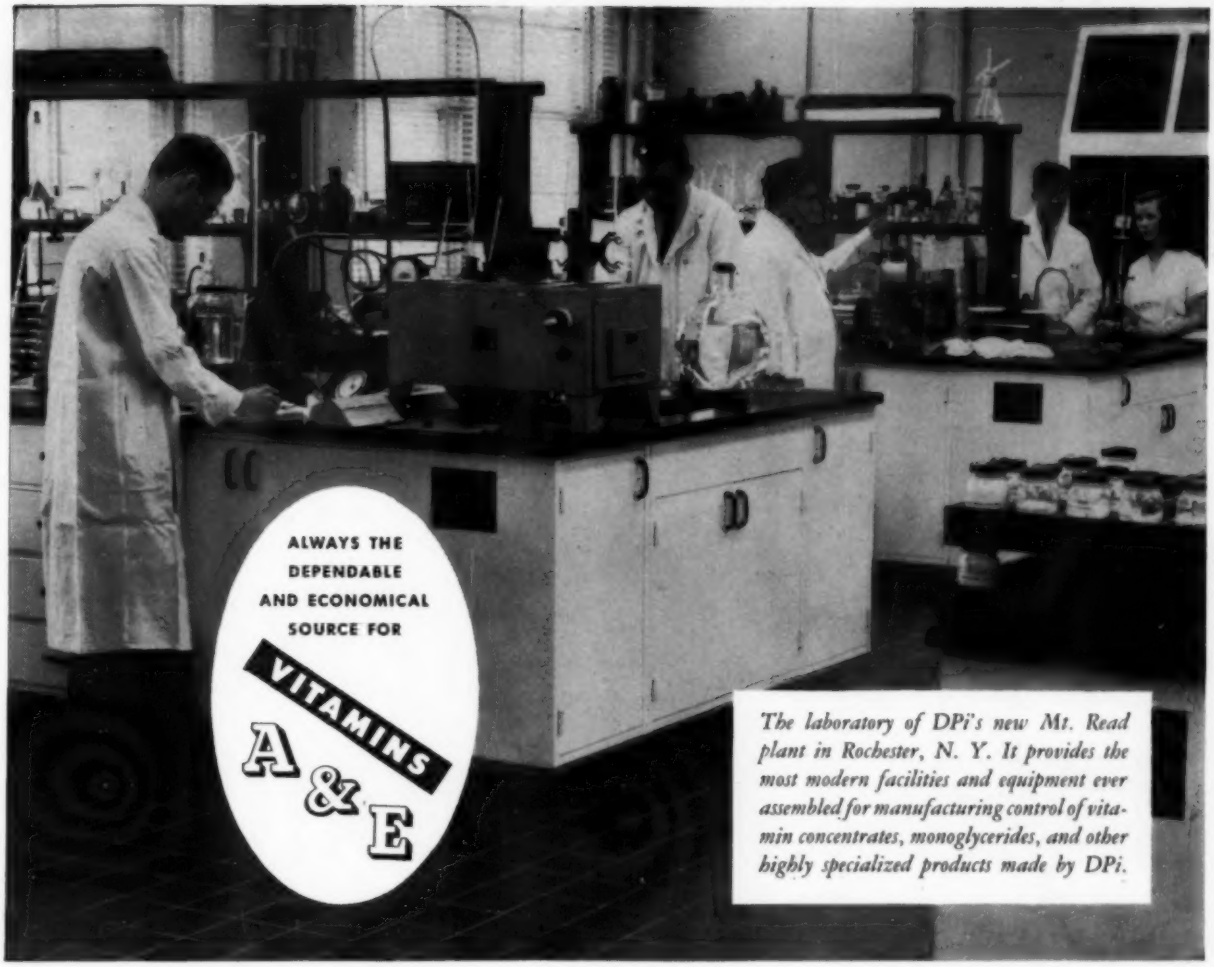

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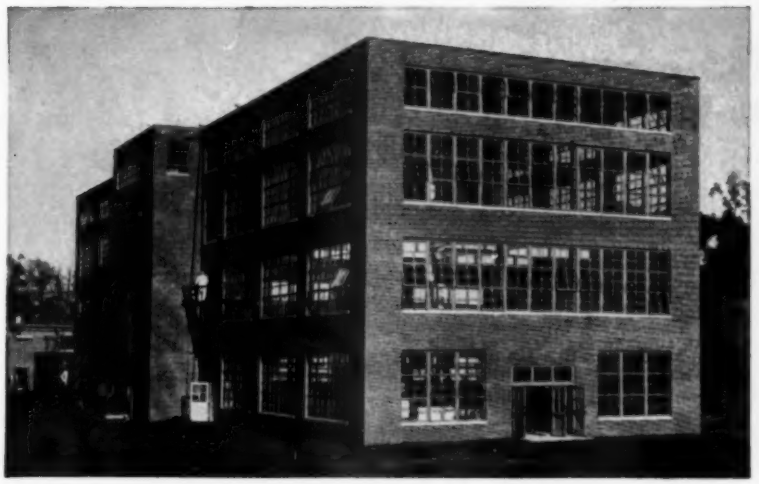

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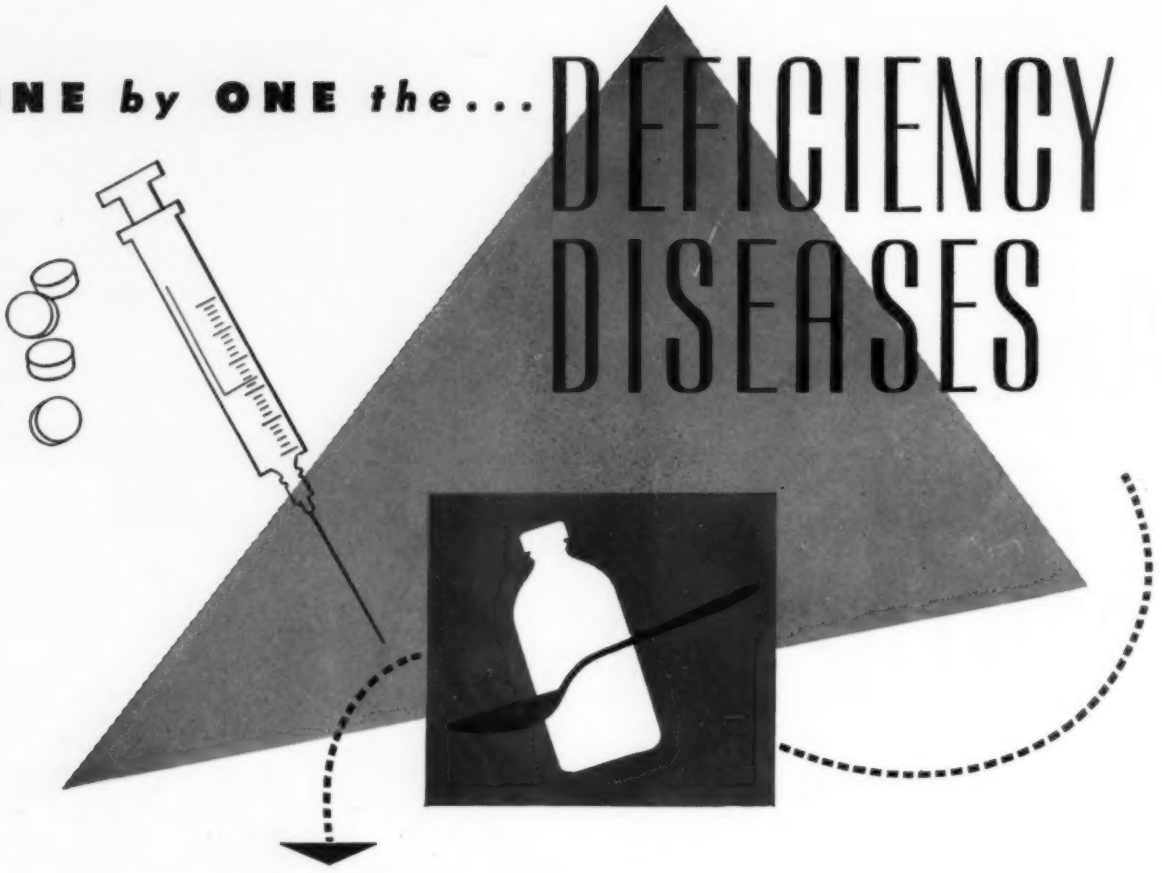

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One by one, scurvy, beri-beri, rickets, pellagra, xerophthalmia—and now pernicious anemia—have been conquered by therapy with specific vitamins.

The part played by Pfizer in the introduction of synthetic Vitamin C, riboflavin and other members of the B complex, including the recently introduced Vitamin B_{12} Concentrate, has been significant. Today, these vitamins are now available to the pharmaceutical and medical professions in quantities adequate for all needs.

Many experienced pharmaceutical manufacturers have come to rely on Pfizer Vitamins. They specify Pfizer because they know that vitamins worthy of the Pfizer Quality seal must meet unmatched standards for purity, stability, uniformity and potency. If you are planning a vitamin preparation, it will be to your advantage to write us today for further information and prices. Chas. Pfizer & Co., Inc.,
630 Flushing Avenue, Brooklyn 6, N. Y.;
425 North Michigan Avenue, Chicago 11, Ill.;
605 Third Street, San Francisco 7, Calif.

FOR PURITY, STABILITY, UNIFORMITY AND POTENCY

Specify PFIZER VITAMINS

- Ascorbic Acid USP
- Calcium d-Pantothenate
- Niacin USP
- Niacinamide USP
- Pyridoxine Hydrochloride
- Riboflavin USP
- Thiamine Hydrochloride USP
- Vitamin A Palmitate
- Vitamin B_{12} Concentrate (Parenteral or Oral)

PFIZER QUALITY

PFIZER

Manufacturing Chemists for Over 100 Years

"One for a blonde, one for a brunette, one for a red-head, one for my wife . . . and what are YOU doing tonight?"

KEEPING POSTED

FDA and FTC Laws Affected by Oleo Tax Repeal

THE dairy farmers of this country are a hardy lot who die hard. After successfully fighting attempts to repeal Federal taxes on oleomargarine for many years, when the tide turned against them, they had put into the law the most amazing provisions to protect themselves from undue encroachment by oleomargarine. The law signed by President Truman repeals the Federal oleomargarine tax. But to prevent any substitution of oleomargarine it amends the Food, Drug, and Cosmetic Act so as to give the Food and Drug Administration the power to reach oleomargarine produced or served only in intrastate commerce which has never entered the channels of interstate commerce. This is done in the exercise of the well established power of Congress to regulate intrastate commerce to prevent a burden on interstate commerce. This amendment actually requires that the Food and Drug Administration police more than half a million public eating places throughout the country, thus greatly expanding the activities of the FDA and calling more inspectors, and consequently larger Congressional appropriations.

But in addition to this, the law amends the Federal Trade Commission Act so as to prevent false advertising of yellow colored oleomargarine. This is a basic amendment which is not cofined to oleomargarine, and it alters to the provision which provides a $5,000 penalty for each violation of a final order by specifying that this fine of $5,000 is now effective for each day of violation. Thus violation of any Cease and Desist Order issued by the Federal Trade Commission for advertising or anything else, could result in cumulative penalties of staggering proportions.

The Vitamin A Market

ENTRY of synthetic vitamin A into the market, and large shipments of natural vitamin A from Japan have broken the back of the West Coast great shark liver industry centered around Seattle. Prices for shark livers had soared from six cents a pound in 1938 to a high of nearly twenty dollars a pound during the war when other sources of vitamin A, including Norway, were cut off. Now the price is down anywhere from $4.80 to $2.50 a pound, less than enough to pay operating expenses, say the fishermen. With these fishermen being squeezed by these low prices, Japan recently sent in a shipment of over two trillion units of shark liver oil at prices ranging from 9 to 14 cents per million depending upon concentration. U. S. shark fishermen, asking 10 and 11 cents—with the cost of processing still to be added—were ready to throw in the harpoon.

The present market for vitamin A in this country is estimated at 110 trillion units per year. In the current year it is estimated that synthetic vitamin A will easily reach a level of sales at which it will account for 50 trillion units. In addition, the Japanese are expected to ship supplies accounting for another 35 trillion units, leaving no more than 25 trillion units to be supplied by the West Coast shark fishermen.

The synthetic vitamin A, already cut in price and due to be cut further as use expands, offers the advantages of steady supplies at a constant price, which certainly will not be advanced; ability to keep inventories at normal levels since there is no likelihood of a shortage developing at any particular time, and since there is no advantage to buying large lots at any particular period of the year; lack of fishy odor and taste and ability of users to tolerate the heavy dosage capsules now being quite widely prescribed. It is more than likely that the advantages of the synthetic product, particularly as regards toleration without gastric upset on the part of the user, might result in a widely expanded market for the vitamin and might cause expansion in production facilities. Such expansion in use of the synthetic product would doubtless result in lower production costs which would be passed on to the consumer.

Two varieties of sharks, the soupfin and the dogfish, are the richest sources of natural vitamin A. The life of the soupfin yields from 25 to 40 million units of vitamin A per pound, while the dogfish averages only between one and four million. Codfish average only 270,000 units per pound.

The removal of the Federal tax on oleomargarine is expected to result in a sharp increase in the use of this product and this will mean a considerable increase in the use of vitamin A. How much this increase in consumption will be is problematical, but it is expected to be of rather large proportions.

Drug Certification Amendment Proposed

AS THE result of several conferences of the Food and Drug Administration officials with producers of antibiotics, a proposal has been drafted to repeal the certification provisions of the Federal Food, Drug, and Cosmetic Act and broadening the "new drug" section of the act to provide for continuous Government supervision over the marketing of antibiotics. Objections to the certification amendment to the Food, Drug, and Cosmetic Act have been voiced for some time. The fact that no satisfactory procedure for decertification is included in the law or has been devised by the Food and Drug Administration has been one main objection. Another objection has been the cost of certification, an expenditure which manufacturers deem wholly unjustified in the light of the record of very few rejections. A most vital objection has been that for every new technique or process of production developed by a manufacturer a monograph has to be drawn up which becomes a matter of public record. Under this provision, it is practically impossible for a manufacturer to reap the full benefits of his research efforts since it must be shared with others.

Pharmaceutical manufacturers propose that instead of certifying each batch of antibiotics, the law be amended to require that before any new antibiotic can be marketed, it must have an effective new drug application. Authority would be given to the FDA to force the applicant to meet certain definite standards regarding his ability to manufacture, perform and maintain safe processing practices, and meet other requirements which would assure only pure and potent products reaching the market. The law would then be enforced through spot checks in the market as is now done with other drugs, and if a product of any producer should be found to be in violation of the law, his new drug application would be suspended immediately and remain suspended until the violation is corrected. Such a procedure would eliminate the certification expense and would enable manufacturers to keep their processes secret. Also it would unite the public against incompetent producers.

Award to Dr. Hampp for Dental Work

DR. EDWARD G. Hampp of the Oral Bacteriology Section, National Institute of Dental Research, has been selected by the Washington (D.C.) Academy of Sciences to receive the 1949 Academy Award in the biological sciences, according to Federal Security Administrator Oscar R. Ewing. Dr. Hampp was selected "in recognition of his original and fundamental contributions to the knowledge of diseases of the oral cavity, and particularly because he was the first to isolate *Borrelia vincentii* in pure culture, thus making possible new approaches to the study of spirochetes."

Truman Names Hutchinson to FTC

PRESIDENT Truman has appointed Martin A. Hutchinson, Richmond, Va. attorney, to the vacancy on the Federal Trade Commission to fill the unexpired term of the late Edwin L. Davis, which term expires in 1953. Mr. Hutchinson, who is 57 years old, is a strong political foe of Senator Byrd of Virginia, having opposed Senator Byrd in the 1946 Democratic primary. He served as Secretary of the Commonwealth of Virginia, and from 1925 to 1939 was secretary of the Democratic State Central Committee. He calls himself a "liberal, independent Democrat," and a supporter of the "liberal, humane and progressive program of Franklin D. Roosevelt."

With this appointment, four of the five commissioners are appointments of Mr. Truman. Only Commissioner William A. Ayres was appointed before Truman became President. The four Truman choices are: Lowell B. Mason, John Carson, James Mead, and Martin A. Hutchinson.

Oldest Drug Houses Now 15

THE list of the oldest drug houses in this country, starting with Schieffelin and ending with Eli Lilly, started out as eight in number when taken from the Reed & Carnrick Medical Quarterly, grew to ten by the time our February issue was published, and on latest information received since that time, now totals fifteen. The additions this time are: Otis Clapp & Son, 1840; Smith, Kline & French, 1841; the Burroughs Bros. Mfg. Co., 1863; Henry K. Wampole & Co., 1872; and The Maltine Company, 1875. While fifteen is a number of no significance, we must start with Schieffelin, and we believe that Eli Lilly is a good one to end with, since who can ignore Lilly when speaking of drug manufacturers. Therefore, any further additions will just swell the number.

The oldest *fifteen* drug houses in the country, according to our latest information, are as follows:

Schieffelin & Company	1781
The Tilden Company	1824
The Wm. S. Merrell Company	1828
Otis Clapp & Son	1840
Smith, Kline & French	1841
Carroll Dunham Smith Pharmacal Co.	1844
Sharp & Dohme	1845
E. R. Squibb & Sons	1858
Reed & Carnrick	1860
The Burroughs Bros. Mfg. Co.	1863
Buffington's	1865
Parke, Davis & Company	1866
Henry K. Wampole & Co.	1872
The Maltine Company	1875
Eli Lilly & Company	1876

Schatz Claims Streptomycin Rights

ALBERT Schatz, associate professor at Brooklyn College, has filed suit in the Superior Court of Trenton, N. J., to restrain Selman A. Waksman, Rutgers University, from representing himself as the sole discoverer of streptomycin. The patents issued to Dr. Waksman in connection with the discovery of streptomycin have been assigned to the Rutgers Research and Endowment Foundation, but Dr. Schatz also pleads for such remuneration as the court determines is due him.

Dr. Schatz worked as a graduate student under Dr. Waksman and in 1945 made joint application for the patent in dispute. In the complaint, Dr. Schatz claims he was persuaded under duress to agree to the assignment of the patent to the Rutgers Foundation. University officials are of the opinion that the litigation will set important precedents for future patent disputes resulting from graduate student—professor relationship.

Russell E. Watson, counsel for Dr. Waksman and the Rutgers Foundation, states: "Dr. Schatz's charge that Dr. Waksman induced him to assign the streptomycin patent application to the foundation by fraud and coercion is baseless and preposterous. . . . Dr. Schatz's work

prior to the discovery of streptomycin covered a period of only a few months and was performed in the capacity of a carefully supervised laboratory assistant. He assisted in the prosecution of a definite part of a comprehensive plan of research, utilizing technical procedures devised and directed by Dr. Waksman, based upon his many years of scientific research and experience in microbiology."

Merck Reports on Cortisone

MERCK & Co. has distributed to their stockholders an illustrated booklet of 28 pages entitled "A Progress Report on Cortisone—Key to a New Era in Medical Science." The booklet briefly tells of the work of Pasteur, Erlich, of the sulfa drugs, the antibiotics, the vitamins, and of the promise of therapy through the avenue of endocrinology as demonstrated by the discovery of insulin, and now of compounds from the adrenal cortex. The story is told of the "Challenge of Synthesis," in cortisone; of the ideas of Dr. Hench and his collaboration with Dr. Kendall in trying to find an antirheumatic substance. Of the clinical indications of the drug and of the attempts to synthesize the preparation in sufficient volume hampered mainly by lack of raw materials. The clinical research program is also discussed and various diseases in which the product has shown promise are listed.

Interesting is the statement that current research in seeking ways to obtain adequate supplies is "vigorously pushing forward along three basic lines: 1. Improvement of present processes; 2. Discovery of more abundant and less costly starting materials for the partial synthesis; 3. Total synthesis of cortisone from inexpensive and readily available materials. Of these three broad directions of research, the one most likely to produce the most immediate results is the first: improvement of present processes. This has already been accomplished in certain operations, and further advances are anticipated. The great practical importance of this line of research stems from the unavoidable fact that the complex cortisone molecule requires a large number of separate steps in its synthesis.

"A fair average yield for any one step is in the neighborhood of 70 per cent. On that basis, two steps then would yield only 49 per cent of the original quantity of starting material. A third step would reduce this to 34 per cent, a fourth step to 24 per cent. Fifteen steps would leave less than one-half of one per cent. Considering the fact that the partial synthesis of cortisone requires more than 30 separate steps, it is easy to understand the smallness of the final yield. It also is obvious that even a small increase in the average yield, or reduction in the number of required steps, would result in an appreciable increase in the final yield of cortisone."

Other diseases beside rheumatoid arthritis for which the preparation shows promise are "rheumatic fever and a group of related chronic diseases which are often fatal and for which there has been no known effective treatment. One of these is a severe and usually fatal disease of the skin and various organs of the body, called disseminated lupus erythematosus. Others are scleroderma, and dermatomyositis, also mostly incurable and often fatal. Encouraging results, as yet considered preliminary, have been obtained with Cortone (Merck cortisone) against leukemia, the cancer-like disease of the blood. Highly promising results have been achieved also in asthma, ulcerative colitis, certain kidney diseases, gout, psoriasis associated with arthritis, and Addison's disease, a severe condition due to destruction of the adrenal glands."

Merck's production of cortisone has reached the point where it measures in thousands of grams per month. Late in 1948 supplies amounted to only a few grams, and during 1949 this was expanded to a monthly production measured in hundreds of grams. It is anticipated by Merck that production will be sufficient to permit the start of commercial distribution later in 1950, subject to release by the Food and Drug Administration, and at the same time continue the flow of needed supplies to medical research investigators.

Effective March 1, the price of cortisone to teaching medical centers was reduced from $150 to $135 per gram. This was the second reduction (original price was $200) made possible by increased yields and consequent lowered costs. Increased production rates and further manufacturing economies are expected to make possible additional reductions as time goes on, although the problems and costs involved are extraordinary.

Raw material sources being investigated include stigmasterol from vegetable sources, cholesterol from wool fat, glucosides from various species of *Strophanthus*, saponins from Mexican yams, and certain sterols, such as ergosterol, produced by microbiological methods.

FTC and Patent Office Dispute

CONTROVERSY has arisen between the U. S. Patent Office and the Federal Trade Commission concerning the rights of the FTC to seek cancellation of trade-marks under the Lanham Trade-mark Act. In the first decision of the Patent Office defining the rights of the FTC under the cancellation provision of the Lanham Act, Commissioner John E. Marzall held that the FTC may only seek cancellation under the 1946 law and published on the principal register which that law set up. FTC contends that section 14 of the Lanham Act allows it to ask for cencellation of any trade-mark issues either under the 1881 or 1905 trade-mark laws, but Commissioner Marzall refuses to grant this contention. The Commissioner claims that the proviso of section 14 does not give the FTC the right to ask cancellation of trade-marks registered under the earlier acts. FTC officials are studying the law to find out if the FTC can appeal from the Commissioner's ruling.

FTC applied for cancellation of the trade-mark, Manfre, owned by the Royal Manufacturing of Duquesne—now the Royal Pharmacal Co.—for use on a male hormone preparation for men's hair, and the trade-mark, Perma-shrunk, owned by the Elder Manufaturing Co., St. Louis, for use on cotton, wool, and linen. FTC claims that the Royal mark was obtained by false registrations, and they claimed that the Perma-Shrunk trade-mark has been abandoned. Supporting affidavits from company officers consenting to cencellation were furnished by the FTC in both applications for cancellation.

Section 14 of the Lanham Act allows any person who believes he is or will be damaged by the registration of a mark on the principal register established by the Lanham Act or under the 1881 or 1905 acts to apply for cancellation under certain conditions. A priviso to the section authorizes the FTC to apply for cancellation under more restricted conditions of "any mark registered on the principal register established by this act." FTC pleaded for a broad construction of this proviso, but Commissioner Marzall says that the language, as well as the legislative history of the act, was plain, and that the rights of the FTC must be confined within the strict limits of the proviso.

Terramycin Distribution

TERRAMYCIN, the new antibiotic which was discovered by, and is exclusive with Chas. Pfizer & Co., is to be marketed to the medical profession through service wholesale drug channels to retail pharmacies and hospitals by the new Antibiotic Division of the company established last month. Present limited production of Terramycin has been supplied to eighty clinical investigators for evaluation of the drug, and early results of this clinical work have created a heavy demand from the medical profession, it is said. Increased production will shortly make it possible to release limited supplies through service wholesalers to retail and hospital pharmacies for distribution on physician's prescriptions.

This step means that Pfizer is, for the first time in this century of existence, marketing under its own label, and controlling distribution all the way, a pharmaceutical specialty. Such a step eventually calls for a complete new marketing set-up including a detail staff, and various other parts of a pharmaceutical marketing organization.

FTC Cites Antihistaminic Advertising

AT LONG last, the Federal Trade Commission has instituted proceedings against the advertising of antihistaminics advertised to the public for abortion of colds. The initial complaints charging false and misleading advertising have been brought against Bristol-Myers Company, makers of Resistab, and Anahist Company, makers of Antihist. Since both of these tablets contain the same active ingredient, the two actions are being brought against identical preparations so far as effectiveness is concerned. The FTC charges that each company is misrepresenting the effectiveness of its product in the prevention and treatment of colds. The complaints also state that, when taken as directed, both preparations "may be unsafe and produce injury or harm to the user."

The Commission says that the preparations—promoted as "miracle cures"—"are neither cures, preventives, nor adequate or competent treatment for the common cold or its manifestations." Anahist's claim that the product does not produce side effects, such as dizziness, is untrue, says the FTC. It also criticized the company's claims that a United States Navy Medical Corps "clinical experiment" proved the effectiveness of antihistaminics in preventing and treating the common cold. The Commission said the investigation was not a "clinical experiment, did not prove what the Anahist advertisements said they proved, and was not conducted by the Navy Medical Corps. The widely publicized "experiments" are those conducted by Dr. John Brewster, while a naval captain during the war, it is pointed out. The Commission questions both companies' claims of "knowledge and reliable information" proving the claimed effectiveness of their products and charges that they "misled and deceived a substantial portion of the purchasing public into the erroneous and mistaken belief" that the claims are true and into buying the products on the basis of these claims.

The Commission states that it is still investigating a dozen other antihistaminics and will file complaints if the evidence warrants. We wonder if the Commission is considering the advertising of Inhiston, marketed by the Schering subsidiary Union Pharmacal Company. Since Schering is owned by the Government and is to be placed up for sale later this month, the price which the Government receives for the company might be affected downward if such a complaint were filed before the bids were in. Also a prospective bidder might anticipate such a complaint being filed following the sale and this might influence his bid.

"We consider the complaint erroneous and misleading," said Stanley Lason, executive vice-president of Anahist. "Every advertising claim we have made is backed by clinical evidence. Anahist does not claim to destroy the cold virus. It is directed only to the relief of cold symptoms."

"The allegations are completely erroneous and at variance with the true facts," said Robert R. Brown, vice-president of Bristol-Myers. "All advertising of Resistab has been based upon thorough clinical and scientific investigation."

Such action by the FTC has been anticipated since the first day upon which advertising of these products appeared and there is nothing surprising about them. However, they will be followed with much interest since, in a way, their outcome will determine in a measure just how far manufacturers can go in the promotion of a new drug product direct to the public, as compared with the claims that can be made when a new product is marketed to the medical profession. In other words, the final disposition of these complaints will serve as a gauge of the present status ethical and proprietary marketing of drug preparations.

Ewing and the New York Governorship

BACK in the days when F. D. R. and James A. Farley were battling over the Democratic nominee for Governor of New York—F. D. R. demanding the nomination go to the present Federal Trade Commissioner Mead, and Farley, in charge of the State organization insisting upon, and finally nominating John Bennett to oppose Dewey, the name of Oscar R. Ewing was mentioned repeatedly as a possible compromise candidate. New Yorkers, by and large, had never heard of Ewing, so the public hardly noticed that his name was even mentioned. Since that time, however, Mr. Ewing has received so much publicity, mainly as the result of his fight for Federal compulsory health insurance, that his name is now quite widely known. Therefore his name is now being strongly proposed in some circles as the Democratic nominee to oppose Governor Dewey this coming November. In line with this we quote the following editorial from the New York World-Telegram and Sun of March 20:

"Considering that Oscar R. Ewing is having no more success promoting his socialistic schemes in the 81st Congress than he did in the 80th, it is not surprising to find him casting about for new fields of activity.

"Quite obviously this is no time for him to consider shifting to England. Last December he went over there, looked around for a few days and reported that everything was just ducky. How this jibed with British public opinion was demonstrated by the recent election and the resultant modification of the health program he so heartily endorsed.

"Apparently he has decided that if he can't socialize the entire United States, it might be interesting to try his hand on New York.

"While rebuffs in Congress make this position understandable, the attitude of the Democratic master minds in this state is less comprehensible . . . The Democratic high command is reported to have decided to make a broad health program the main plank in the 1950 campaign. The public is expected to ask who can stand on such a plank as fittingly as the country's leading exponent of socialized medicine.

"Our guess would be that if the Democrats want to cook their own goose in November they can find better ways of doing it than by giving the gubernatorial nomination to Oscar Ewing. Quite probably many New Yorkers would like to see their present health services expanded and improved. Mighty few of them, however, want to become guinea pigs for the type of socialistic experimentation Mr. Ewing advocates.

"The theory of a governmental paternalism which cares for everybody from the cradle to the grave has taken Great Britain to the threshold of bankruptcy. New Yorkers with their eyes open are unlikely to want to start their state along the same road."

Pfizer and Antibiotics

"THE factory price level on penicillin in parenteral form has now reached the point where further price decreases by the manufacturer on all but a few specialty items will have little or no effect on the consumer demand," declared John E. McKeen to the members of the New York Society of Security Analysts last month. "Oral penicillin, on the other hand, is still a relatively expensive pharmaceutical item; consequently factory price reductions in this field conceivably may still have some bearing on consumer demand," he added. Excess penicillin productive capacity in this country since late 1948 has brought about a condition in which many producers are operating at fraction of their plant capacities, he said.

"With domestic streptomycin production easily 200 to 300 per cent in excess of domestic consumption, the key to the streptomycin picture is clearly the foreign demand for this product," said Mr. McKeen. "With the establishment of foreign manufacturing facilities now underway in several major foreign countries, it is not inconceivable that streptomycin exports will decline from 40 to 50 per cent during the next twelve months. It is difficult to see how this can materialize without major effects on the existing streptomycin price structure.

"Taking into consideration prevailing circumstances with reference to penicillin and streptomycin, it is quite apparent that further price reductions are probable on both products. Assuming even the most favorable set of circumstances, namely that demand were to equal full productive capacity, it is quite apparent that the prevailing price structure allows only nominal profits in comparison with 1946 and 1947 levels. Thus penicillin and streptomycin have changed from high-margin pharmaceuticals, to mass produced low-profit pharmaceutical staples."

"At the present time," said Mr. McKeen, "approximately 45 per cent of Pfizer's total sales are in antibiotics with the balance evenly divided between the medicinal chemical, industrial chemical and food, feed and beverage classifications.

"During the last two years, Pfizer has more than doubled research facilities and personnel. These activities fall principally into four categories: biochemical, organic chemicals, chemical engineering and medicinal or clinical research. Biochemical activities include the maintenance of a culture screening program, medicinal bacteriology, pharmacology, biochemical engineering, and the study of atomic isotopes in fermentation.

"From a profit point of view, the only realistic solution to this (antibiotic) problem lies in the development of new and exclusive antibiotic specialties. This is an exceedingly costly and vigorous alternative; nonetheless, it is the avenue of approach being most extensively explored by certain leading antibiotic houses today."

With reference to Pfizer's new antibiotic, Terramycin, Mr. McKeen said it "is now undergoing what is believed to be the most extensive clinical trials ever undertaken by a single company on an antibiotic product. This product has certain important advantages. It may be administered orally. It is characterized by the relative absence of side effects. Our clinicians report that the product has an exceptionally broad spectrum including the possibility that it may have unique value in the treatment of influenza and certain other infectious diseases not yet covered by existing antibiotics. Thus Terramycin may well be the most significant antibiotic discovery since the discovery of penicillin."

Now Ammoniated Bubble Gum

NOW the kids can blow bubbles and still keep their mouths ammoniated. The Philadelphia Chewing Gum Corporation is marketing Kare bubble gum said to "provide ammonia alkalinity to the mouth with more lasting protection and benefits." The gradual chewing of Kare, it is claimed, assures longer contact with affected areas, and a greater degree of ammonium ion effect. Ammonia liberation provides free ammonia alkalinity in the mouth for over an hour, it is said. The product retails at 37 cents for a 4½ oz. box, and the company suggests it be displayed with dentifrices and drug products to step up impulse buying.

Schering Sale Soon

SCHERING Corporation, wholly owned by the Government through wartime seizure from enemy owners, will probably be offered for sale during the latter part of this month, according to Alien Property Custodian Harold I. Baynton. The continually delayed offer to sell the company, in which the Government owns 100 per cent of the outstanding stock, will be made "according to regular SEC procedure with the publication of a prospectus and a call for sealed bids," according to Mr. Baynton. The Government retired Schering preferred stock and long-term indebtedness and last June split the common stock ten to one. Following the issuance of the prospectus in the latter part of this month, a period of thirty days will be allowed for the filing of sealed bids. Upon inspection of bids, those from prospective buyers considered ineligible will be rejected, and then the company will be sold to the highest of the eligible bidders.

Sales of the company for 1949 totaled $14,824,589, an increase of 26 per cent from the 1948 sales total of $11,770,151. The increase in sales was largely due to the introduction of new products, according to Schering President Francis C. Brown. Sales of these new products more than offset the effect of a fifty-five per cent reduction during the past year in the prices of male hormone preparations. New Products introduced in 1949 included the new antihistaminics Trimeton and Chlor-Trimeton; Coricidin, the antihistaminic APC combination for colds and respiratory infections; various new preparations based on the antibiotic, gramacidin; a new tablet containing sex hormones which could previously be given only parenterally. In February of this year, Schering introduced Prenolon and Prenolon Acetate for treatment of rheumatoid arthritis.

Schering Corporation is owner of the Union Pharmacal Company, marketer of Saraka and Inhiston. This is the proprietary branch of the company, while the Schering name is used only on ethically-marketed drug preparations. Arura Cosmetics, Inc., marketing Imra Depilatory and other cosmetics such as sun tan products, is also a Schering subsidiary.

Net income for Schering Corporation for 1949 totaled $5,379,954, compared with $4,865,352 earnings in 1948, or an increase of 10.5 per cent.

606 AVENUE X

The VAC Co. Inc. EXTOWN, OHIO

Drug & Cosmetic Industry
101 West 31st Street
New York 1, N. Y.

Dear Sirs:

My purpose in writing you is to get some advice and guidance with reference to my ----------

Cream.

This is a fine product, well packaged and is the original formula as worked out by a very successful chemist with whom I had the pleasure of working some years ago at the old ----------

Pharmacy.

This cream is differently formulated from the creams of today. Contrary to modern beliefs the vegetable juice does not turn rancid. I have shelf samples going back several years to prove this. The secret lies in the method of culturing the juice and in the technique of incorporating this juice with the oils.

For some years I have been selling this cream in a small way through a few jobbers and mail-order. It is a good sales repeater. Now I would like to expand gradually, cautiously and economically. How shall I proceed?

Very truly yours,

Victor A Campbell

GETTING STARTED

A Letter to a Cosmetic Newcomer

Dear Mr. Campbell:

The question you ask is the oldest question in the cosmetic business. It is the question most frequently asked and the one most difficult to answer.

Because it requires so little capital to enter the cosmetic business, each year brings literally hundreds of hopeful and enthusiastic newcomers. Many of these believe with earnest conviction that they have something new and wonderful in the way of a package, a formula, a process or an idea. Most of these hopefuls lack capital and cosmetic sales technique or experience, two very essential ingredients for success in this industry.

You do have certain advantages which give you an opportunity to succeed.

First, and basic to your success, you apparently have an excellent product, well packaged. You have proved this in the only satisfactory and conclusive way that product value can be proved, that is by building up a clientele, however small, who have used your product and come back for more. Your mail-order business and your few direct sales are for this reason a real asset encouraging you to expand.

Next, your small sales to a jobber are encouraging. These repeated small sales presumably mean an indication of retail acceptance, and in a small way, retail success. It would be useful if you could locate a retailer who has purchased your cream and who has perhaps sold a few jars and found that such a sale repeats. The reason this information would be so valuable to you is that you are really in business when you have made one retail success, i.e., demonstrated that a retailer will buy your product, that he can sell it and that a reasonable number of customers like it, perhaps talk about it and come back for more. That is the one fundamental story you must have to interest other retailers.

Your third asset is a mental approach to building a business in this industry which the large majority of newcomers lack and which is the basic reason for the failure of most of them. You say that you want to expand gradually, cautiously and economically.

By expanding gradually, you have an opportunity to acquire the experience and technique in marketing a cream or any cosmetic, which you must acquire. By expanding cautiously you can largely avoid mistakes and minimize those you are sure to make. Expanding cautiously will give you the opportunity to work out a formula for distribution, selling and retail cooperation which is adapted to your kind of cream, its price and your own temperament.

As for economy, it is fortunate you have that well in mind since you say you have little or no capital. But even if you had a nice little nest-egg, you would soon be in trouble if you used it to expand too fast. It takes time to grow—time to sell a retailer, make delivery; time for the retailer to get your product on his shelf and then sell some jars; time for the customer to use your cream and decide she likes it; time for action when she tells her friends or comes back for more. Once in a great while some one comes along with a product so wonderfully good and different that it generates a great deal of its own energy and shortens time. But for most of us there is trouble when we try to beat time.

As for the direction and procedure of your expansion, you have quite a number of paths that you could follow. Obviously you should pick only one of these, not only because of your lack of capital, but because all success in business is predicated on winning a reputation and in proving sales success. Your chance of winning a reputation and proving the ability of your product to sell and repeat is increased by concentration, at least in the beginning.

I think you should discard methods of selling cosmetics outside the retail trade. Such methods as mail-order (very limited) house-to-house selling and the beauty parlor require a highly specialized experience and skill and are not adapted to single product selling.

In the retail trade over 200,000 stores carry cosmetic products of some kind and to some degree. It is the very rare cosmetic product that can or seeks to secure distribution in all these stores. While not exactly divided into water-tight compartments, each of these several classifications of these retailers have their own specialized class of products, each have their own advantages and disadvantages to the manufacturer as a source of distribution, and each have operating policies and philosophies that are often antagonistic to each other. If you will examine each of these classifications separately, you can determine for yourself the direction you would like to travel, and what problems you must face.

Over 50,000 general or small dry goods stores in rural areas stock a limited variety of cosmetics or toilet preparations. Their total volume is a small percentage of the total retail volume in cosmetics or toilet preparations, their sales per store is very small. The products sold in these stores are basically the low priced utility products for which a wide consumer demand has been created by many years investment in extensive advertising. These stores comprise the outer fringe of mass distribution. Hardly any of them can ever produce an annual sales for a cosmetic product justifying even a yearly call by a routine salesman. Obviously these stores cannot be included in your calculations.

The super-market grocery store is becoming an increasing factor in the distribution of certain kinds of cosmetics or toilet preparations, particularly in the south and middle west. Because there may be a certain amount of dynamite in this rapid expansion, to which the spark has not yet been applied, there is an understandable degree of shyness in many branches of the trade in discussing this increasing share in cosmetic distribution which super-markets are seizing.

The self-service super-market is the most dynamic growth in the retail field today. They provide tremendous volume, funneled into single sales contacts, large traffic per store, display that takes maximum advantage of the unplanned purchase and an operating overhead that must scare the pants off most other kinds of retailers.

The cosmetic products of the super-market are again those low priced, utility products for which a wide demand has been created by extensive consumer advertising. They are not for you, or for the small manufacturer, for the limited budget or for the product that requires sales talk over the counter. Keep them for your dreams.

The variety or five and ten cent stores are a fairly rigid or specialized section of the industry. Only a very efficient volume producer can do well in this field. They can hardly enter into your calculations at this time.

The independent druggists number about 55,000. As you well know, there are all kinds of druggists. Some are so specialized professionally that they sell no cosmetics or toiletries of any kind, some are predominantly restaurants, many, perhaps over 50 per cent, cannot sell an annual volume of a low-priced, demand utility toiletry sufficient to justify a single annual call by a manufacturer's salesman.

It seems to be the conclusion of surveys and manufacturers' opinions that not much over 4,000 druggists, certainly not over one out of 10, are showing a specialized interest in their cosmetic department, are capable of rendering a real cosmetic sales service or have anything which can be called a cosmetic clientele. These 4,000 stores will do as much as 80 per cent of the retail drug store business in perfumes and cosmetics, priced at $1.00 and up.

The cosmetic-minded retail drug store is a very important part of cosmetic distribution, accounting for nearly ⅓ of retail cosmetic sales. The independent retail druggist can offer very definite advantages to the small or growing manufacturer who in turn will find that here, perhaps more than in any other retail branch, he can cut his cloth to fit his suit. We will return to the druggist in our discussion of procedure.

Chain drug stores may, from a cosmetic viewpoint, be good, bad or indifferent and this may also be said of individual stores within each chain. Some drug chains are doing an admirable job marketing perfumes and cosmetics; they have won full recognition from manufacturers of the higher priced, prestige products and they rank with the best retailers in trained, skilled selling, in fine display and in a wide range and selection of goods.

Approximately ⅓ of the stores under chain management may be classified as "A" cosmetic stores or as stores where a full, adequate stock is displayed with trained sales help. These stores will do approximately 80 per cent of the chain perfume and cosmetic business in products priced at $1.00 and over, excluding the mass distributed, utility products of the trade which they also sell.

Most chains can organize a manufacturer's promotion right through to the retail counter more effectively than most other cosmetic retailers. The chain is the one retailer, outside variety stores and super-markets (also chains) which has straight-line sales direction and control, separated from purchasing. Because the chain is organized for operations which can produce substantial volume, they do not offer very good opportunities for the small manufacturer with limited capital who is building his reputation largely on the help he can receive from a retailer.

The department store normally provides the best opportunity for the introduction of a new cosmetic product, provided of course the product is suitable for department store distribution. The department store toilet goods department has usually great public prestige. It provides heavy traffic and skilled selling. Its community-wide accessibility for shopping enables

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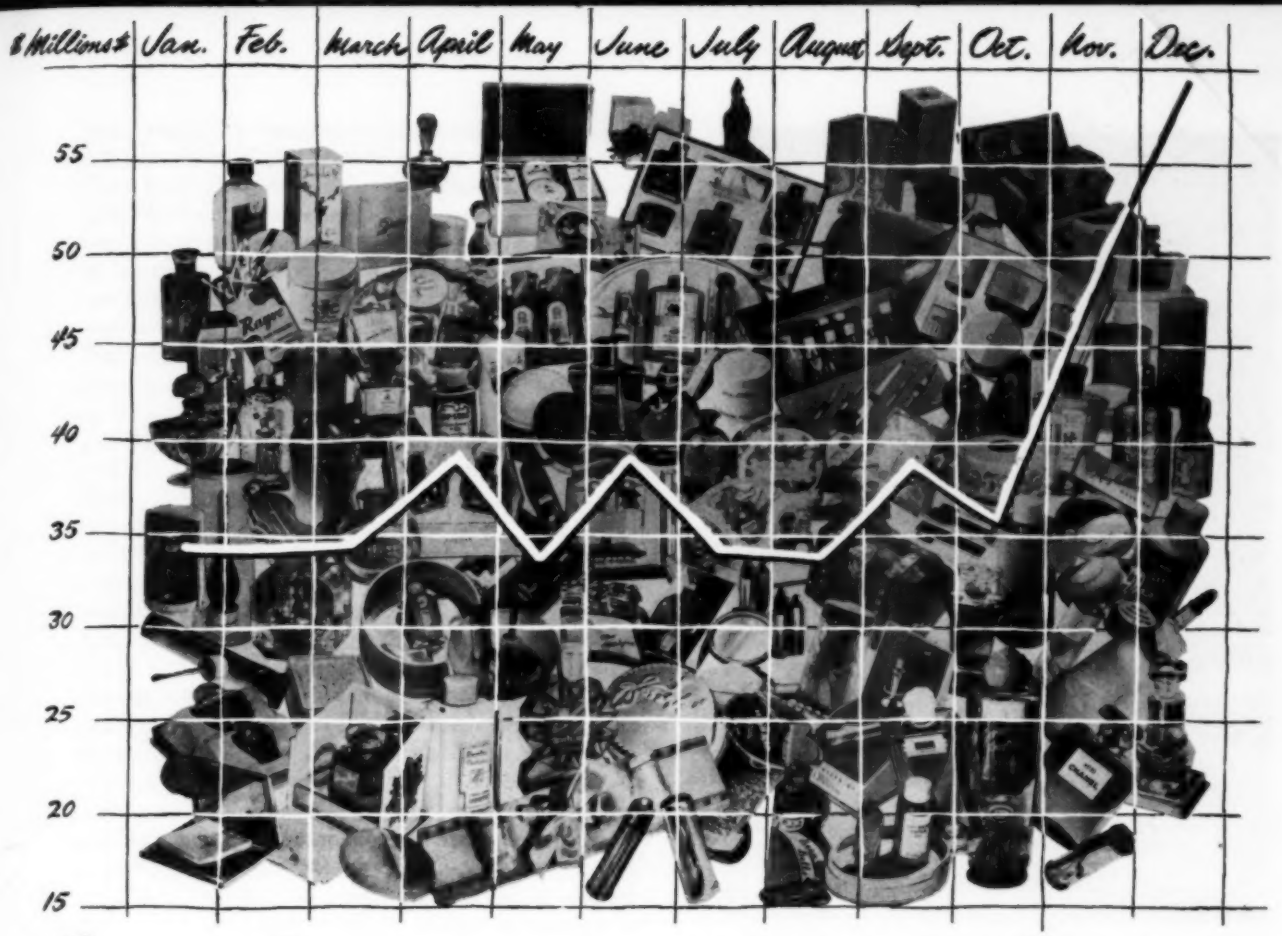

Consumer Expenditures for Taxable Cosmetics, Tax Excluded 1949

MONTHLY SALES OF PERFUMES AND COSMETICS

MONTH-by-month retail sales figures of taxable perfumes and cosmetics are now complete. February excise tax collections, which represent the amount of taxes collected on December sales because of the lag between the time the actual sale is made and the time these tax monies are forwarded to the tax collector, complete the calender of 1949.

These figures, as shown graphically, indicate a very uneven flow of consumer purchasing. Christmas remains the high peak of industry sales and clearly reveals the dependence of a large part of the industry on gift buying.

It would be of tremendous value to the industry if there could be devised some way of breaking down these monthly figures of consumer purchasing for perfumes and cosmetics into cosmetic classifications. There is little doubt that certain products, such as deodorants and hand creams, would show a seasonal variation that is not entirely inherent in the character of the product or in consumer habits, but is more a traditional habit of advertising by the manufacturer and of display and selling for the retailer.

While large Christmas sales must always remain an essential part of this trade, both for volume and profits as well as for sampling it is certainly an open question as to whether the industry is measuring up to its opportunities in other months. The daily use of cosmetics and fragrances as a matter of personal satisfaction and personal care is still a long way from realization.

The number of volume gift occasions such as birthdays, graduations, Mothers' and Fathers' Days, hospital visits, does not seem to be contributing its potential.

These figures show the flow of month-by-month consecutive purchasing. They constitute a challenge to the perfume and cosmetic distributor.

HALITOSIS

By Milton A. Lesser

THANKS to the pervasive influence of modern advertising, "halitosis" has become an all too familiar word, with a most unpleasant connotation. Doctors will remark that halitosis is the layman's term for what they call *fetor oris*. By whatever name it may be known, bad smelling mouth or fetid breath is a condition that greatly influences a person's happiness and social status. Unfortunately, the victim of this disorder is frequently unaware of his condition and, in the words of the copywriters, his best friend won't tell him.

Who, says Shanks,[1] can tell how many people have lost friends, jobs, sweethearts or mates because of this condition? Bad breath, he notes, is one of the most difficult of troubles to deal with. For centuries it has been a subject of great despair and much dispute. In ancient times, this disorder excluded its victim from the privileges of the priesthood and, in more modern times, it was actually grounds for divorce.

Several years ago, Crohn and Drosd[2] observed that, from the few references in the general literature, one would surmise that halitosis is a rare disease instead of a common condition. Of course, the actual incidence of halitosis—like dandruff and athlete's foot—is not known. Dentists report that nearly everyone has bad breath some of the time, but that only a few persons suffer constantly from this condition.[3]

Halitosis may have many causes and the condition may be of systemic, or local origin or both. Many writers on the subject have stressed the mouth, teeth and the pharynx as sources of bad odors on the breath; attributing the fetor to decaying teeth, pyorrheal abscesses and nicrotic pathological processes in the pharynx. Shanks,[1] for example, lays particular emphasis on the fact that halitosis may be due to neglect and perhaps untreated nose and throat conditions. Thus, the malodorous condition may be due to symptoms of nasopharyngeal disease, ulceration of the nose, polyps, diseased gums and defective teeth, rhinitis, pathological tonsils and adenoids, or infected sinuses.

In addition, says Shanks, the bad breath may be a simple condition due to a cold or lack of proper hygiene. It may occur as a temporary phenomenon from ordinary retention of mucous decomposition products or neglect of hygienic principles. Halitosis may arise from overeating, constipation, use of tobacco, snuff, various spicy or garlic-containing foods, and from the immoderate use of alcohol or drugs. In addition, one cannot overlook the possibility that the halitosis may be due to constitutional or infectious diseases.

In most cases, halitosis is a preventable condition and in the others it is generally amenable to proper treatment. As noted recently in the *Journal of the American Medical Association*,[4] usually the cause can be found and often it can be corrected. It is pointed out that detection of the cause requires a survey of the list of possibilities, an examination of the patient and a decision on the possible source of the odor. Correction of the condition then depends on the removal of the source, if possible, or recurrent cleansing and deodorizing.

Halitosis of systemic origin may be associated with a number of diseases, including diabetes, syphilis and gastric, intestinal, gall bladder and kidney disorders.[1] In severe diabetes, for example, fats may be incompletely burned in the body and the volatile acetone and related substances which are thus formed may appear on the breath.[5] If the intestinal tract is a source of the odor, a number of factors may enter the picture, with each requiring its special correction. The causes may range from esophageal diverticulum, gastritis, cholecystitis, colitis and gastrointestinal allergy to faulty fat metabolism.[4]

This last brings to mind the hypothesis formulated by Crohn and Drosd.[2] They suggested that essential halitosis is "the excretion on the breath of malodorous

fats, fatty acids or volatile substances resultant from some fault in the digestion or metabolism of fat." They believe that the noxious volatile matter is absorbed from the intestinal tract, is carried to the liver, is partly excreted in the bile, but in the main is picked up by the circulating blood. The blood, in traversing the alvoeli of the lungs, parts with the odorous substance, which is finally exhaled on the breath.

In discussing various possible treatments based on this concept of "essential" halitosis, these workers suggested that patients suffering from this condition are amenable to the therapeutic test of a low fat diet. On administering such a diet, a prompt disappearance of the halitotic odor occurred. They also felt that attention should be given to the intestine and the liver because, according to their theory, these are the sources of the disagreeable odor. It was found that a single moderate dose of a saline laxative did not clear up the halitosis. If, however, the laxative was given in larger doses, the oral odor was much ameliorated. Colonic irrigations were less effective in reducing the oral fetor. Noteworthy is their observation that constipation itself seems to play little part in the production of halitosis.

In view of the lack of specific information on the incidence of halitosis of systemic origin, it might be well to cite the data obtained during the studies made by Morris and Read.[6] They found that about 7 per cent of the subjects having an initial high order of halitosis failed to respond to prolonged local physical or chemical treatment. Hence it was concluded that such individuals could reasonably be classified as having halitosis of systemic origin. However, no attempt was made by these investigators to determine the specific causes.

Drugs used in the treatment of various diseases or infections may impart an odor to the breath. Cipes[7] mentions that halitosis may be caused by the ingestion of odoriferous medicines such as phosphorus, valerian and asafoetida. Diphenylhydantoin sodium ("Dillantin"), used in the treatment of epilepsy, may also cause halitosis.[8] A disagreeable garlic odor may also arise from the administration of an organic arsenical compound. It has been suggested[9] that this odor may be covered temporarily by sucking on a peppermint lozenge.

More localized as causes of halitosis are certain disorders of the respiratory tract. For example, Haggard[5] notes that the breath may be tainted by an abscess in the lungs. This, of course, is a serious condition and the odor is a rather insignificant feature. Far more important and more common with respect to breath odor are such disorders as chronic nasal catarrh, atrophic rhinitis, adenoids, chronically diseased tonsils, and sinus infection. Shanks,[1] who stresses the role played by disorders of the nasal passages, is convinced that maxillary sinuses are of importance in the production of halitosis, or are at least a contributing factor. Others[10] agree that purulent secretions present in cases of maxillary sinusitis can be responsible for repeated attacks of bad breath.

Obviously, conditions of this sort require medical treatment. For instance diseased tonsils and adenoids may be removed. True infection, if present, may be treated in various ways after a differential diagnosis, including the trial of an appropriate antibiotic.

Certain forms of halitosis may result from a combination of systemic and local factors. The odor arising from the ingestion of garlic, onions and other members of the Allium family offers the most outstanding example of such a combined effect. Of these, garlic is the most thoroughly studied. It has been found, for example, that its characteristic odor is due to methyl sulfide, ethyl sulfide, ethyl disulfide and allyl disulfide.[11] However, not all investigators are in agreement as to the mechanism by which these odorous materials appear on the breath.

In 1935, Haggard and Greenberg[12] reported on the results following the feeding of garlic. They stated that the odor of garlic on the breath resulted only from particles of the substance retained between the teeth and in other parts of the mouth. When the garlic was ingested by capsule, they observed no odor on the breath. They claimed to have been able to eliminate the odor from the mouth through the use of chlorinated preparations. They found that the use of a one per cent solution of chloramine was effective for removing garlic and onion odors, even when soap and water, and 30 per cent alcohol had failed. The solution could be prepared readily by the use of tablets containing the requisite quantity of deodorant.

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Much more recently, Morris and Read[6] fed garlic in capsules to three of their subjects. Breath odors appeared in 30 minutes and persisted for 48 hours in two instances and for as long as 72 hours in the third. The tests were repeated using antiseptic and various other materials as mouth rinses, without any observable effect on the intensity or duration of the odor. Since the garlic had never had contact with the mouth, it was evident that the odor was of systemic rather than oral origin.

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(Continued on page 476)

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By Harry Hilfer

PROTECTIVE COSMETICS

OF RECURRING interest are preparations whose function it is to protect exposed portions of skin against vigorous weather conditions or against conditions encountered in certain occupational tasks which entail exposure to greases and oils.

Some of the better known hand lotions on the market have incorporated in them materials which are calculated to be resistant to moisture. These are probably the largest type of protective preparations since the most common ailment seems to be chapped hands, caused primarily by exposure to a cold moist atmosphere. Obviously, the best method of counteracting the effects of such conditions is to incorporate into the preparation a water repelling substance. There are large numbers of such preparations available and the choice is usually dependent on the final properties desired to incorporate into the preparations. Water repellents are not the only materials used since advantage is taken of the humectant properties of glycerine as well to effect absorption of the moisture by a layer of it applied to the skin and thus keep he moisture from actually having any deleterious effects.

A further qualification of such a preparation is that the applied film feel comfortable to the touch and thin

enough so that the consumer is not conscious of its presence. In addition, it should be capable of enhancing the appearance and to impart a highly desirable smoothness. On application it should dry in a reasonably short length of time and the film should not be "tacky" or otherwise show that it is present.

The list of qualifications mentioned may seem rather long but unless all these provisions are met, the consumer will discard the preparation for another. In tracing the development of the protective preparation, we must start with the old glycerine and rose water mentioned in the Pharmacopoeia. This preparation had as its sole purpose the application of a thin layer of glycerol to the skin. In spite of some of the dehydrating properties attributed to glycerol, this preparation met with marked favor and its use is still enjoyed by a large number of women. As time passed, however, and cosmetics as such passed from a luxury category to one that was almost universal in its appeal and scope, there was a demand for preparations which would have some defense for women who had to wash their own dishes and clothes and who therefore needed a more positive protection against the ravages of long-time immersion of the hands in soap and water. The emulsion types of hand lotions and hand creams were a logical development to meet this demand. The easiest method of applying a substance insoluble in water in a thin layer is by either first dissolving it in an organic solvent or by incorporating it in an aqueous emulsion. There are few, if any, organic solvents which could be safely used on the skin continuously because of their propensity towards degreasing of the dermal tissues. The safest method would therefore be the emulsion form.

Emulsions and methods of their formulation have been exhaustively treated in the literature, but the soundest practice in their stabilization still seems to be to allow them to stay under observation for a year before deciding whether or not they are marketable. There does not seem to be any uniform rule which could be followed to assure adequate stabilization of a new formulation, so therefore no recommendations will be made beyond stating that the most commonly used emulsifying agents are still soaps. Most of the well-known brands of lotions and creams still use soap emulsifiers, but the resemblance ends at this point. The protective agencies incorporated into the emulsions have only one characeristic in common, that they are insoluble in water. However, they consist of fatty acids, glycerides, waxes and mineral oils and other hydrocarbons. In spite of the seemingly generalized impression that mineral oil as such had a degreasing effect on the skin, its use is fairly common and seemingly successful. Hydrogenated oils are also in common use and also successful. Beeswax, though not used in all preparations is in common enough use to be considered a factor. This is possibly due to its ability to stabilize most emulsions by relatively small additions. However, all of these substances may be regarded as protective agencies.

It would appear that incorporation of these materials with water-miscible ingredients (glycerine and soap) would cause the film to be stripped as soon as it was subjected to immersion in water. However, it is entirely possible to balance the lipophilic and hydrophylic agencies in such a manner that the resultant applied and dried film is fairly resistant to immersion.

Methods have been devised by which the emulsifier is destroyed after film dehydration, which further insures a water repellent film. One such method takes advantage of the inherent instability of ammonium soaps by incorporating it as an emulsifier in a hand cream. After application of the film, the ammonia evaporates along with the water and eventually the soap is converted entirely to fatty acids which in itself makes a good water repellent. The added advantage lies in the fact that there is no longer any emulsifier present and that the film will therefore not reform an emulsion on being subjected to treatment with water and will therefore not be easily washed away.

More recently zinc stearate has been incorporated in a hand cream to supply dual functions. Its presence greatly enhances the smoothness of the film and it also is a most effective water repellent. This is rather a new treatment of an old thesis and we believe deserves watching. Zinc stearate has been used as a constituent of face powders for many years because it imparts both these functions to the powder. In this sense the idea is not new. Its application to a hand cream, however, is as far as we know a completely new idea and very sound insofar as theory is concerned.

Of lesser interest now, but of great interest during the war were the protective creams directed towards women who worked at jobs normally filled by men during the wartime manpower shortage. Since the hands were to be protected against oils and grease, the protective agencies consisted of lipophilic repellent materials. One of the best known of these preparations had relatively large percentages of glycerol and sodium silicate as its effective agencies. Such a formulation, in addition to effectively preventing greases from penetrating to the skin, also was easily removed with soap and water, taking with it any of the greases that

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BETTMANN ARCHIVE

NAMING A PHARMACEUTICAL

By Charles T. Silloway

Vice President, Chilcott Laboratories, Division of The Maltine Company, Morris Plains, New Jersey.

Delivered at American Pharmaceutical Manufacturers' Association. Sales and Advertising Section Meeting, February 15, 1950

WHAT is the best name for a new product? Ordinarily, it is that name which will best facilitate its sale. The product itself, its nature, and the sales strategy which its character dictates will be the most important consideration in choosing the type of name to be given to a product. Considered in a general way, there are three types of names which might be used to identify any product when selling to, or through, the medical profession.

I. *For many types of products the common name, which might be the generic, the chemical, the pharmaceutical, or official name will be the most satisfactory.* If the product is widely known by its common name, it may be wiser to market your product under that common name, giving up the advantages of exclusiveness, in favor of a designation which everyone immediately recognizes and which would require no translation when soliciting sales.

As a matter of fact, many times market conditions practically force one to the common name, as witness the penicillin situation. A good many firms attempted to establish a private trade-mark for their brand of penicillin. You are familiar with many of them, and save for a few special physical forms, none of the private names for penicillin was successfully established in the market.

There are a good many widely known materials which it might be unwise to attempt to market *today* under any but their generally accepted non-exclusive name. Such products as diethylstilbestrol, heparin, thiouracil, and in our company's experience—Thromboplastin.

Other products which may fall into this classification include those listed in the official compendia such as the U.S.P. or the N. F. where general familiarity with the product under its common name eases your sales problem and outweighs the advantages you would gain from having an identification exclusively yours.

Broadly stated, physicians and the drug trade immediately identify the product called by its common name. When you use that common name for your product, however, you give up the exclusiveness for ready familiarity.

II. *Another general class of names which might well fit the new product we were talking about are descriptive, or semi-descriptive in nature.* Ordinarily, these names cannot be protected with a trade-mark registration; in other words, they can be "pirated" although in many instances other companies do not choose to do this. For example, "Vitamin B Complex Capsules," "Multi-Vitamin Capsules," etc.; a particularly good example is "Ferrated Liver Concentrate Upjohn." For many types of products this descriptive name is the most profitable one to use. Here again, you forego exclusiveness for easier identification and quicker sales response.

III. *The third, and probably the most important class of names as far as all of us here are concerned, is the coined, unique, private trade-mark.*

There are a number of products which practically demand a creation of a coined trade-mark name because it is the only practical way to identify the product. Let's take an example which may be a little bit extreme, but I am sure you can think of more extreme ones. Suppose the new product we are talking about is a remedy for peptic ulcer, and let's say it contains a little belladonna, a little phenobarbital, some aluminum hydroxide, some calcium carbonate and a demulcent material of some kind or another. To identify such a product obviously a coined name is almost essential. About the only other alternative is to call it "John McDonnell's Peptic Ulcer Remedy No. 10."

Most of our companies introduce during the course of several years several products of this type which, because they include more than one ingredient, are not easily identified in any way except by a coined trade-mark.

Another class of products for which this type of a mark is highly desirable: Suppose your product is a new chemical substance which is not patentable, or on which the patents may expire before the useful life of the product from a sales point of view is over—let's say it is a phenobarbital or amphetamine—it is easy to see that brand preference established over the years by a trade-mark like "Luminal" or "Benzedrine" confers a great sales advantage when other companies enter the field to sell the same product under its generic name or under a trade-mark of their own.

In general, it is difficult to establish this brand preference except through the use of a coined trade-mark.

(Continued on page 481)

SALES AND SCIENCE

TIME was when the salesman and the scientist got along about as well as the proverbial oil and water mixture. In the past, salesmen were supposed to have been extroverts who had no sense of responsibility and certainly no grasp of science. The depth of their thinking, in the opinion of many people, was as shallow as the ice of the Radio City Skating Rink. On the other hand, scientists were supposed to be introverts who lived in ivory towers. They, according to common belief, were entirely devoid of a sense of humor and unsympathetic to the business side of research. Allegedly, they had nothing but disdain for the sales department of a commercial enterprise. The sales department took a dim view of scientists and, although they didn't venture to say so, mentally categorized scientists as being "Bewilderingly Uniform, but perplexingly diverse."

Something has happened to change all this and this change in attitude has, in my opinion, been good for the pharmaceutical industry. This changed attitude has made for progress. This changed attitude could be described as a superemulsifying or dispersing agent which has brought about an almost perfect colloidal mixture of the oil and the water.

The Public's Interest in New Discoveries in Medicine

Whether you regard it as good or bad, there is no dismissing the fact that the lay public has, during the past decade, acquired a deep interest in the progress of science. This is particularly true with respect to progress in medicine. This is understandable when one stops to realize that the prevention and treatment of disease has subjective significance. Scientists can no longer hide from the penetrating spotlight of publicity. The names of the leading scientists, and even clinicians, appear in the public press with almost the frequency of stage and screen stars. The public has developed an insatiable appetite for news of medical science which, unfortunately, is sometimes greater than their digestive systems are able to absorb on a sound physiological basis.

The problem of how properly to control this public interest and channel it in the right direction is one for public relations. However, I refer to this problem because it suggests very definitely that a mutuality of interests between scientific departments and sales departments is today, more than ever before, essential. In thinking about how we can bring about a complete understanding between sales and science, my thoughts naturally turned to some of the difficulties faced by both scientists and salesmen in the Pharmaceutical Industry.

It would be much more palatable if I were to present the positive and cheerful side of the story. However, since we are earnestly striving to eliminate some of these difficulties, I have no hesitancy in presenting the negative side as well as the positive by submitting a list of do's and don'ts for both sales and scientific departments. All of you, on both sides of the fence, will, I am sure, recognize at least a few of these points.

Do's and Don'ts For The Sales Department

1. Do resist the temptation to ask the research department what the blazes is the use of anything it is doing. There are at least six very crushing replies which research people keep for those who ask this question, one of which is "Sir, as Faraday said to Mr. Gladstone, "Can you tell me the use of a newborn child?"

2. Do avoid interrupting the research department with petty matters. It is a common mistake when some technical problem arises, for the sales manager to say, "Well, why don't we get the research people in on this? What in the world are they here for?" We should think twice before we ask the research department to investigate a minor problem or to get an answer which we can frequently find for ourselves.

3. Do keep in mind that scientists are just as eager to make progress as we are to have them.

4. Do make an effort to understand the research department's reasons for interest in a project which appears to have little commercial significance or value.

5. Do make an effort to understand that careful fundamental or applied research takes time.

6. Do make a sincere effort to be on time for research meetings and resist the temptation to do more talking than necessary.

7. Do resist the temptation to point out the brilliant accomplishments of the research departments in competitive firms. Sales departments frequently attempt to magnify the accomplishments of competitors' research activities and to minimize their own. This is not so stimulating as we think.

*By Robert A. Hardt**

8. Don't labor under the delusion that scientists are people with nice orderly minds who love theory . . . that they are people who pay attention only to regularities and not to the anomalies of performance.

9. Do avoid the frame of mind that without us getting the business scientists would starve.

10. Do keep in mind that we can accomplish almost anything we want to accomplish if we don't give a hang who gets the credit for it.

11. Do remember that sales is a good friend of research, but a poor master.

12. Don't make the mistake of becoming permanently discouraged if a suggestion you submit is turned down by research. If the suggestion is worth while, conditions may be different a little later and research could then generate some interest in your proposal.

13. Do keep in mind when reporting comments and suggestions from the field staff that they are not trained investigators, nor clinicians.

14. Do keep in mind that even new combinations of old and accepted ingredients require some clinical testing.

Do's and Don'ts For The Research Department

1. Do remember that perfection in a product, while desirable is rarely, if ever, achieved. A drug may be a real contribution to the therapy without being the last word in treatment. Remember the line of Bill Grubbins "Once we lost our turnip crop while he was inventing a gun."

2. Do remember that the benefits of research have no great value until sold to the public.

3. Do remember that a sense of humor will sometimes save you from giving up the whole thing in disgust.

4. Do remember that not all ideas are necessarily incubated at leisure. Actually, some projects can be on a cost and time schedule.

5. Do remember that research has found success when you see research men becoming welcome visitors to sales conferences; giving occasional talks before sales conventions; in short, entering into the informal, rather than the formal, relationships in which business men get to know and trust one another.

6. Do remember that the sales department can furnish leads as to needs in therapy which are not currently being met.

7. Don't forget that the field staff knows about trends in therapy and that sales departments can make reasonably accurate sales estimates.

8. Do remember that the best place in the company for information as to the schedule of timing in the release of new products is the sales department.

9. Do keep in mind that the sales department should have a strong voice in the forms the product should take, as well as the package design. Sometimes the sales department can also contribute suggestions as to informative labeling. What is said on a label may have a definite bearing on sales.

10. Do remember that a painless birth of a new product is a rare obstetrical achievement.

11. Do remember that only the sales department can decide whether a product is really marketable.

(*Continued on page 485*)

*Vice-President, Hoffmann-La Roche Inc
Address delivered before the Eastern Scientific Section, American Pharmaceutical Manufacturer's Association, February 13, 1950

STABILITY TEST METHODS

FACTORS IN DETERMINING STABILITY OF DRUG PRODUCTS*

By Irvine Grote--University of Chattanooga

UNDOUBTEDLY the most certain method of testing the stability of any drug product is to hurriedly ship out several hundred thousand units for placement on the druggist's shelves. This method, unfortunately too often practiced, frequently leads, simultaneously, to the demise of the product; sounds of anguish from the return goods department; and red faces on the part of those who insisted the product could not wait for the usual preliminary test procedures.

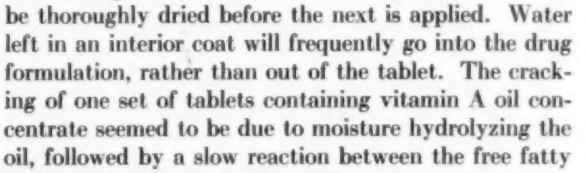
The next surest method of testing the stability of a drug product—and one considerably less costly—is an exhaustive study of the formula of the product, preferably by individuals of a group with long experience in the sorrows that may come from any type of product. This is followed by a conference where a free exchange of opinion is made. We have seen personally so very often a grief stricken conference held over a product which has shown signs of illness after being placed on the market. Frequently there were obvious incompatibilities in the formulation. Often these are hidden in the manufacturing process, which was not fully understood by the research man who developed the formula.

In the case of tablets, neglect of specification of exact moisture content of the granulations and finished product may often lead to serious trouble. It should be remembered that more real moisture per cubic foot can be present if the relative humidity is low on a hot day, than if the relative humidity is many points higher on a cold day. Often the tablet may find this out for you. Furthermore, the tremendous value of air conditioned tablet rooms may be completely lost if the bulk tablets are taken from it into unconditioned rooms for even short storage times, or if they are exposed during the packaging operation. Moisture pick up can be incredibly fast, but it is lost very slowly.

Then the binders, excipients, and coating materials must be watched closely in view of the pH and other differences between the granulations. If several different granulations of widely varying pH or chemical composition must be combined in the tablet, it should be remembered that shellac or other coatings separating the granulations are often broken during compression. The separate granulations should be well coated with some neutral agent to act as a buffer between the broken and incompatible surfaces. In coating, each coat must be thoroughly dried before the next is applied. Water left in an interior coat will frequently go into the drug formulation, rather than out of the tablet. The cracking of one set of tablets containing vitamin A oil concentrate seemed to be due to moisture hydrolyzing the oil, followed by a slow reaction between the free fatty acid and the chalk coating. Thus gas and pressure developed and the tablets split.

Furthermore, after making every effort to keep uncoated tablets dry, we have seen them filled into a bottle which was then liberally stuffed with cotton which normally contains 9 to 12 per cent moisture. This moisture from the cotton is of course rapidly picked up by the tablets. In many such cases the use of a fiber glass stuffing is permissible and most useful.

It should be noted that practically any type of closure, except possibly roll-on cap, will breathe to some extent

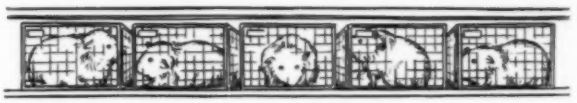


with alternate changes in temperature. Accelerated tests run in the incubator may very often be misleading as to the stability of the product and tightness of closure because the constant temperature of the incubator or oven does not allow this breathing to take place. The product therefore remains drier and freer from air than it would if tested under room conditions. Furthermore, it should be remembered that hardness

*Delivered at the scientific meeting of the A.D.M.A., Cleveland, February 1950.

and disintegration tests on coated and uncoated tablets often change for better or worse on standing; tests should be made not only on freshly prepared tablets, but also on older ones. Flavor or other oils may slowly coat over individual grains of the tablet and change the disintegration times greatly. Similarly, the pH of liquids and emulsions may change markedly over periods of time.

In the case of liquid preparations, stability tests are often made with an unflavored and/or uncolored liquid and then the desired flavor or dye added without further test. Flavors and dyes may be oxidizing or reducing or



precipitating substances of no mean potential in the destruction of the contents of the bottle, where these are present in small amounts, as in the case of vitamins. Iron, copper, tin, zinc, aluminum and other elements picked up in the filling lines may give trouble. Glass lined tanks will not keep out copper if brass cocks, hose couplings or filling spouts are used. Changes in filter media and aids by the production department may frequently cause not only serious loss by adsorption, but may also introduce contaminants that can lead to future trouble. All such changes should have the approval of the laboratory. Cleaning of the filling lines may not be complete or the lines may not be left dry, giving not only trouble in dilution, but also danger of introducing mold growth.

Years ago, we used to believe that all the bottles filled in a batch from a thoroughly stirred individual tank were the same. Now we know that they can vary enormously as the filling procedure goes on, but they need not, if proper precautions are taken.

Antiseptics used as preservatives toward bacteria are not necessarily fungicides or yeast growth preventives and many products deteriorate because they are not sterile. The two to three per cent of alcohol present in a syrup preparation, and sometimes left out of a formulation due to change in manufacturing process by use of solid rather than fluid extracts may be of real value in preventing fermentation. Alcohol serves as a preservative based on the free water content of the preparation, which can be determined by taking into account the total solids and glycerine present. This important factor in preservation we have pointed out in another paper published a few years ago in the Journal of the American Pharmaceutical Association.

It should be taken for granted that the druggist and customer will do everything in their power to cause deterioration of the product. If the product is light sensitive and placed in a carton for further protection, rest assured that the carton will be removed and the product placed in the sun. If the product is to be kept cool, it will surely stand for many hours on a hot freight platform. If it picks up water, the druggist will fail to reclose tightly. Such products should be packed in amber glass and in smaller units only. If the tablet is soft, and packed in larger units, the tablets may be ground down by successive prescription fillings from the bottle.

It would seem to us therefore, that for a first step the most sensible, economical and satisfactory way of preventing deterioration in drug products is a careful study of the formula, manufacturing process and packaging procedures by competent people well versed in the grief attendant upon a slip in any one of these steps.

Having made sure of the formula, manufacturing procedure and packaging, the careful chemist will then ask for all the time permissible for time tests on the product. Since the sales department usually wants the product day before yesterday, accelerated tests must nearly always be used. The results of such tests are usually given more credence by production and management than by the laboratory. While it is true that the speed of a chemical reaction may double for each ten degree rise in temperature, and many times deterioration may exceed this rate, this does not always hold true. Precipitation, oxidative changes and those due to growth of microorganisms, as well as moisture pick up, may often be missed in accelerated tests. It is often advantageous to ship a product to California and back by freight. This may uncover potential weaknesses in creams, emulsions and powder mixtures much better than centrifuges, the shaking machine or other laboratory procedures. The constant vibration of the freight car, the rapid changes of temperature and humidity and the rough handling offer splendid tests of stability. Shipment by air express will give an even better test of closure tightness. Placement of the product in the hot room, the cold room, in direct and artificial sunlight are obvious. Frequently it is advantageous to alternate such conditions. It is highly important that all tests

be run in the proposed finished package if possible. In one case a very large manufacturer had to open and loosen the packaging material in a great many Christmas combination items because a lotion in the group took the plating material off a plug used in the perforated closure.

Volatile constituents in the formulation may produce odors and other effects when different cap liners are used, in fact liners are the basis of a lot of difficulties. Ointments containing volatile oils are particularly hard to hold. Not only is the cap liner and the padding back of the cap of great importance, but also the top of the neck of the bottle may be a factor. For instance,

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MANUFACTURE OF TABLETS

PART II — EQUIPMENT

By Ronald Clarkson

WITH the exception of one or two pieces of equipment, which are specifically designed for the purpose of making tablets, we must turn to equipment designed for other purposes. Over a period of years machines which were primarily designed for an entirely different purpose have been used and found to be quite satisfactory for producing the desired results.

In the case of mixers for instance, there are so many different types and sizes that the uninitiated, when first confronted with all the different models and different types of agitators, such as single or double spiral, ribbon type, trowel type, broken spiral, sigma type and many others too numerous to mention, becomes bewildered.

It is my intention, therefore, to describe the purpose and action of the various machines. Doubtless, there are many machines that I will overlook as time and space do not permit covering every manufacturer. I will confine myself to the machines and manufacturers with which I am familiar and in so doing hope I can put my readers on the right track.

Weighing Equipment. It goes without saying that if you want to produce accurate and uniform dosage in the finished tablets that all the materials must be weighed in a like manner. The type of scale or scales naturally will be governed by the size of batches that you will manufacture. However, one piece of advice I can offer is that a good scale of fairly large capacity will prove to be a better investment in the long run than a smaller scale which might be adequate to start with, but as your production increases it would soon become a nuisance to have to weigh several small batches of each material.

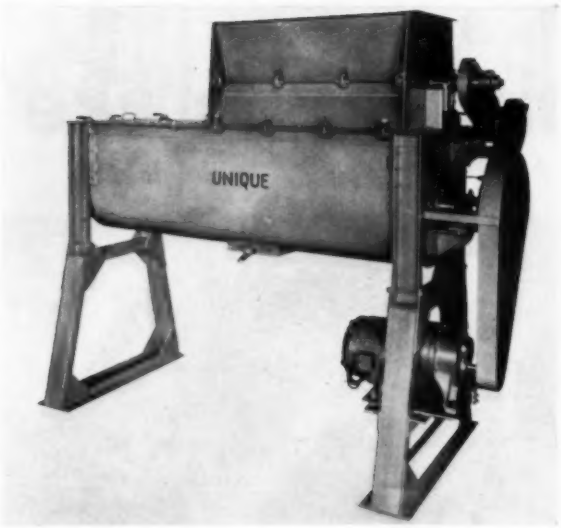
The margin of error on weighing a fairly large batch is liable to be considerably less than weighing several small batches.

Mixing Equipment. As mentioned previously there is a very wide selection in this particular field. Some of the machines we will discuss were designed for entirely different applications and yet in use have been found to work quite well in the tablet industry.

In my opinion all raw materials should be screened to remove lumps and foreign material. Materials which are shipped in barrels with paper liners quite often contain linters, tailings and small fibres despite the efforts of the manufacturers to guard against them.

Preliminary screening not only assures clean materials, but by reducing all the ingredients to uniform particle size actually provides a more uniform mixture in a shorter period of time.

The machine best suited for this operation is a sifter and mixer.



As the name implies the unit consists of a sifting device mounted over the blender. The sifting device is simply a revolving brush installed in the loading hopper and mounted over a wire screen of any desired mesh. The screens are mounted on rigid frames and can be changed from one size to another in a few minutes. The lumpy material is fed into the hopper. The brush passes it through the screen then drops it down into the blending chamber, which is equipped with an agitator. For most blending operations pertaining to tablet and powder applications the double spiral ribbon agitator is satisfactory.

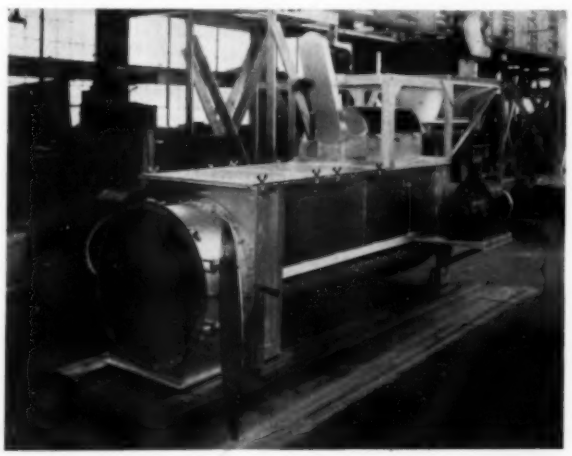
These blenders can be equipped with either a center discharge or an end discharge, whichever is most convenient for the particular operation.

After the mixing operation is completed the operator merely places suitable containers under the opening, while the machine is still running, open the discharge gate and the mixer will empty itself in a few minutes. This is due to the design of the agitator blades.

These machines are now available in stainless steel construction, which is in keeping with the general trend throughout the pharmaceutical industry. The height of the supporting frame can be made to suit the customer's requirements.

I can hear some of my readers saying that these machines take too long to clean. Well, in the older models I agree that this was true, but on the newer models there have been a lot of improvements. Of course, the operator still has to use good judgment when deciding whether to pass the material through a hand screen or use this machine. The size of the batch will govern this decision.

In special applications it is sometimes necessary to sieve the complete mixture a second time in which case the material is discharged through a sifting device, as shown in Figure 2 or it can be passed back through the sifter again.



If the materials entering into the formula are about the same proportions and are not lumpy a great many tablet men do not bother with a sifter and mixer. In fact, I know of many tablet departments who do not have these machines. They simply mix the dry ingredients in the same machine they will use for granulating. Sometimes only a small proportion of the ingredients entering into the formula are lumpy, in which case they can be screened through a hand screen directly into the mixer.

If the mixture contains any colored materials it is fairly simple to judge by in-

(Continued on page 454)

See anything you like?

What's your product? If it's in the proprietary and toiletries fields, Continental has a first-rate container for it.

Our line includes slide-cover boxes in a variety of heights, and hinge-cover boxes in many sizes. We have round friction plug cans for miscellaneous household products, sifter top cans in round, oblong and oval shapes for all kinds of powders, as well as a wide assortment of round lock top cans—some with and some without inner seal—that are excellently adaptable to many dry products.

Only a few Continental cans are shown here. You'll find there are many, many more — and among them there may be just what you're looking for. Our lithographers are ready to turn out a job that will do your products proud. It costs nothing to talk things over — why not give us a call?

You can't beat Continental as a dependable source of supply!

CONTINENTAL CAN COMPANY

Eastern Division: 122 E. 42nd St., New York 17 Central Division: 135 So. La Salle St., Chicago 3 Pacific Division: Russ Building, San Francisco 4

PACKAGING AND SELLING

TRENDS IN DISTRIBUTION

There seems to be quite a number of manufacturers who have decided to reduce the number of retailers in their distribution and to work on a more selected basis.

Not long ago one of the leading manufacturers of nationally advertised carpets announced such a plan, and now just recently the Thor Corporation, manufacturers of major appliances, has announced that it will cut the total number of dealers from 20,000 to a "highly selective 7,000" this year. This selected dealer plan will be backed by an advertising and sales promotion outlay totaling $1,750,000, the highest in the company's 44 year history.

John R. Hurley, president, said that the company is convinced that the new plan will materially improve its sales as well as those of dealers retained in the program. He said that 80 per cent of the nation's major appliance volume comes from 25 per cent of the retail appliance dealers.

Two perfume companies, producers of well-known popular, prestige brands, are now in the process of drastically reducing the number of retailers who will be allowed to stock their products. There is a basic difference between the so-called mass distribution and selected distribution, and it would seem that the advantages and the requirements and the adaptability or susceptibility of these two methods of distribution for any one class of product is becoming a subject of very critical study today as each industry passes into over-supply of its product and to fight to maintain its volume.

Basically the value of mass distribution is adapted to a low price utility product requiring immediate customer convenience, and because a large percentage of the retailers are not very alert or capable merchants, they must be supported by very heavy consumer advertising which will perform a major part of the sales task. On the other hand, selected distribution is normally the formula of a higher priced "shopping" product where because of the amount of money involved, or the character of the product, the consumer is willing to go to some small inconvenience in shopping, or at least does not expect the convenience of a neighborhood store as in the case of the low priced utility product.

In the case of the selected store normally a much higher degree of alertness and ability is expected and because this restricted distribution gives in effect a territory or neighborhood franchise, the retailer in turn is willing to give a great deal more personal attention and energy to this particular product. In addition to this, the percentage of volume which a limited percentage of the retail trade will do, as quoted by the President of Thor, is very generally about the average of any retail group.

In cosmetics, for instance, out of a total possible number of retail outlets exceeding 200,000, if we include all drug stores, syndicate stores, many general stores and one-third of the grocery super-markets, not over 6,000 stores will do 80 per cent of the business in cosmetics priced at 60 cents and over.

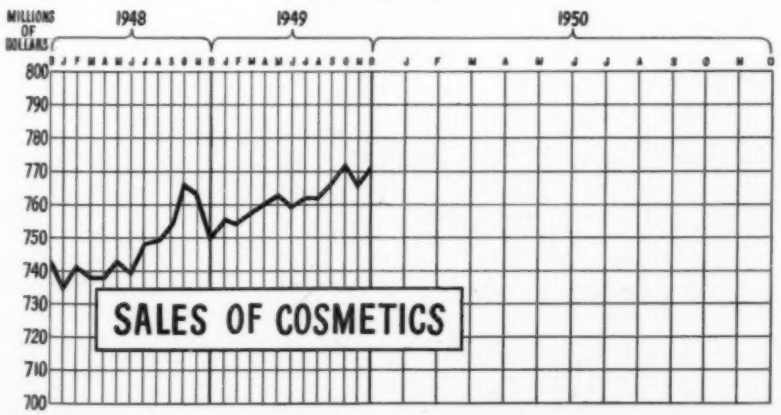
There seems to be a strong probability that in the intense, competitive fight for retail business that branded merchandise is entering, an increasing number of suppliers will cast their lot with a limited number of highly competent retailers from whom they will be in a position to demand friendly retail help.

Cosmetic Bombs

The aerosol bomb is invading the perfume and cosmetic market in the way we would expect in a bomb. This method of application, which has become so famous as a convenient practical method of dispensing insecticides and other sprays, is now being adapted in small metal containers using the same form propulsion for perfumes, colognes, toilet waters, deodorants, liquid creams, leg make-up and in many other ways. The companies making the containers, the propulsion and the private label companies engaged in filling are an active part of the industry.

First to enter the market in our industry will undoubtedly be the G. Barr & Co. of Chicago with a large size cologne for the department and chain store field and a medium size for the syndicate field. This company has been

Retail sales of cosmetics for the twelve months ended with December 1949 amounted to $770,800,000. This compares with $749,750,000 for the twelve months ended with December 1948.



doing a great deal of specialized work in this particular application of the aerosol bomb and they state that they have several other very interesting products standing in line.

On Its Way!

Television has already reached the point where it is beginning to influence family life, cut into other forms of entertainment and communication, and in the viewpoint of some experts, bring about the greatest social change in this country since the introduction of the automobile.

A group of theater owners, radio broadcasters, book, magazine and newspaper publishers have recently financed a survey to find out what television is doing to their business. In this survey 400 television set owning families in the Capital were interviewed. Adults in these families said that they spent 22.6 per cent less time reading magazines than formerly, 29.1 per cent less on books and 4.7 per cent less on newspapers. Adults in these families went to the movies 72 per cent less than they did before they got the sets and children went 46 per cent less. On about the same basis the attendance to sports and games have dropped off.

Packaging

Packaging and labeling of industrial products is discussed in a very complete analysis in a Guide on this subject which is being distributed by the American Supply & Machinery Manufacturers' Assn., Inc. of Pittsburgh. While this is a Guide for the packaging and labeling of industiral products, most of the instructions are equally valuable as a guide in creating the package of a consumer product.

Following is some of the advice on packaging:

Test packaging material for strength, protective qualities, processing, suitability for printing or lithographing, etc. Test the package for convenience to all factors concerned—manufacturer, distributor, dealer and consumer—and for ease of handling; and combine factors of container, display and dispenser in the one package, if possible.

Design package for easy inspection, without destroying its value as a container. Determine quantities—or unit of sale—only after considering trade practices, consumers' habits, units of use, weight, relation of package cost to contents' value, remembering that pricing units affect handling costs. As the package itself is the first place users look for product use application guidance, make instructions clear, simple, concise, and print them on the sides if possible; if instructions include parts list, diagrams, etc., enclose a separate sheet (or a card for tacking up) with an *Instructions Inside* notice printed prominently on the outside of the box. Utilize shipping case sides for 2-color billboard-type advertising as well as for identification.

Regarding labeling, the guide suggests these pointers:

Labels should never be used as an advertising medium, only for ready, accurate product identification. Visibility and simplicity of design are important.

Lipsticks

The contributions of research to new cosmetic products or to improvements or variations of cosmetic products have not been very exciting or very frequent during and since the war. Perhaps a few things that are happening in lipsticks are perhaps a sign that the cosmetic industry will get its turn at research developments.

There isn't any question that true indelibility for the lipstick is either here or near at hand. Two or three new sticks will appear on the market this year; one of these from abroad and one is the result of quite a protracted period of research by a chemist employed in a totally different industry.

Another new development that we have heard about but have not seen is a new method of surface finish on the lipstick which gives a clear, brilliant effect and the same high appearance as if the lipstick were wrapped tightly in cellophane.

Super-Market City

We understand that anyone interested in the case history study of the growth of the super-market type of merchandising and the way in which it is extending generally into other fields of packaged goods than groceries, should take a trip to Houston, Texas.

In this city are three super-market chains that have expanded into what could very properly be called packaged goods department stores.

A very interesting situation has developed here in the cosmetic business in that some of these stores have perfume and cosmetic departments that compare in size and variety of products and in general attractive appearance with some of the finest cosmetic departments in other stores. Although these cosmetic departments are primarily based upon the super-market plan of open display and help yourself, some stores do employ two or three salesgirls who are there to operate in the traditional function for higher price products, products that require explanation, education or demonstration. Some of the trade's finest brands are on sale here.

Another notable thing that has taken place in the city, one of the two or three fastest growing cities in America, is that as a new development or suburban area is being built, one of these chains is very alert to put a fine store plump in the middle of this new residential section. Visitors tell us that it is rather sad to walk into one of these super-market departments and see the crowd of women making purchases and then to go into the same department of the city's leading department store and notice the comparative calm and absence of shoppers.

The other leading Texas city, that is Dallas, doesn't seem to be particularly going through this evolution. Perhaps one reason for this is that in Dallas one of the few, most alert, vigorous and imaginative department store managers that the country has.

Terse

A group of American sales experts have been visiting in England on a plan to teach Englishman how to sell merchandise in America.

Said the Chairman of this Delegation in a London speech, "We don't keep goods, we throw things away," and again, "A definition of durable goods is goods that will last until time payments are completed."

This is a pretty good terse definition of obsolescence.

More Door to Door

Magazines may largely forsake the mail-order business and go over to the booming house-to-house business if the new post-office bill, which would add extravagantly to their mailing cost, goes through.

The Curtis Publishing Company is now operating a plan in a local test area for its own magazines and that of eight other top publishers. The magazines will be freighted to central points where salaried agents will pick them up and distribute them to the subscribers' doors.

Since these agents will also take renewal orders and new subscriptions, this method may work out so well, that at least for large publishers, the elimination of the mail route may prove to be of ultimate benefit.

Quality Versus Sales

From time to time the remark is made that the primary reason why industry maintains a Research Department is not for original, creative research in producing new products or enhancing the quality of established products, but in devising ways to reduce costs in a way that will permit the product to get by without any unfavorable reactions from the user.

The people who make these remarks are not, of course, thinking about the broad field of industrial research which has contributed so many miraculous things to this country, but rather to that narrower field of research which exists primarily among the manufacturers of packaged, consumer products.

It would be easy enough to refute such statements with a voluminous wealth of material. And yet there is enough truth in this contention to make it a serious matter for thought.

Manufacturers of many packaged, consumer products have had unusually difficult cost problems in the last few years. A number of these manufacturers have discovered that they were making a product on which the retail price was frozen. either because of accepted fair trade standards, or because the price had a traditional association with that particular product or brand, or because increasing competition was establishing a ceiling beyond which they dare not go.

This period of rapidly rising costs in labor, packaging, shipping and in many other ways has put these manufacturers in a very serious squeeze and many manufacturers of branded products, whose retail prices have been largely fixed, have been looking desperately for a way to squirm out of this corner. The manufacturer of a branded, consumer product has been literally forced to look in the direction of reducing quality as it became necessary to reduce cost. He has certainly not been able to direct any cost reductions in his payroll or the other things mentioned above, and he has certainly not been able, in most cases, to bring any form of cost reduction in his selling expenses.

As a matter of fact, one of the most serious problems which businesses of this sort face today is the plain fact that continually increasing costs in marketing have been possible because of a continually decreasing cost in production. This has been taking place over the last 20 or 30 years, but now that the voracious appetite of marketing expenses can no longer be fed by declining production costs, a serious problem has arisen in regard to product quality which must be faced.

A small example of this took place in a medium size restaurant a few years ago. A plan was worked out with one of the aromatic houses where the cooking odors of the restaurant could be replaced by a positive odor which would stimulate the appetite and give a pleasant food odor in the restaurant. The odor finally accepted contained a prominent note of vanilla, and this odor was used not only in the restaurant, but arrangements were made to carry a faint smell of this odor into the street in front of the restaurant. The business of this restaurant increased substantially and within a little over a year the restaurant was sold to another man at a very favorable price.

Although the use of this odor had unquestionably accounted for a definite increase in the business of the restaurant, and this was accepted by the new owner who stated very strongly that he intended to continue this plan, one of his first acts on acquiring ownership and in tackling all costs was to make the aromatic house substantially reduce the price of the odor, which meant in effect the substitution of an inferior grade of vanilla odor.

It may be that the new owner, who was undoubtedly a bear cat at reducing costs, was not as good a manager or a restaurateur as the former owner. For it seems something more than a coincidence that the business of this restaurant once again began to decline and the patronage fall off.

A few years ago one of the largest corporations in our trade purchased a small New England company. This company which had been making very rapid strides in a limited territory without any capital and without much owner-experience had very obviously a product which was selling on its own merits and acquiring real momentum because purchasers liked it. It was just the sort of purchase that large corporations in many cases have built into substantial national assets.

In this case when the large corporation acquired the company the product went into the laboratory and the cost sheets went into the front office where everybody there was horrified to discover that this careless and not very well informed, previous owner had actually been buying a number of raw materials at a price that was shocking to the large company. This shock was intensified because they knew perfectly well from reports from their laboratory and purchasing department that excellent synthetics and substitutes existed at a fraction of the price for some of the materials in this product. In a relatively short time the laboratory and the purchasing department had shown a very substantial decline in the cost of this product, and the product itself when manufactured gave every evidence of being a competitively good product for its class.

Strange to say this product which showed such great promise has been lagging very badly on the retailer's shelves in spite of the heavy investment in advertising and the forceful pressure of this large manufacturer's sales force.

Industry learned a great many bad lessons during the war, which it is true were unavoidable, but which is also true are persisting long beyond the time when it is necessary. There were many wonderfully ingenious ways devised during the war for substitutes of short materials that were excellent for that period, but which were nothing but what they were called, and that is a substitution.

As we get deeper and deeper into competition a considerable number of manufacturers of packaged, consumer goods must once again learn the lesson that there is not enough advertising in the world, or that the extreme limits of enthusiastic retail cooperation or any other thing which may be added to selling pressure, that can overcome the consumer judgment as to product quality. This judgment on the part of the consumer may take quite awhile to develop. It is rarely a positive factor but exists as a lurking sense of dissatisfaction in the back of the human mind.

It should be almost trite and unnecessary to say that the products which will continue to grow from now on are the products which the consumer, in his own casual and indefinite way, decides are giving him the most pleasure and satisfaction.

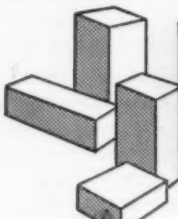
More Zest in Packaging

Cosmetic salesmen are continually running into a remark and a complaint which seems to be spreading through the retail stores and is being taken up particularly by the toilet goods buyers in department stores. This complaint is that the industry has had little or nothing that is new to contribute since before the war.

These buyers have gotten it into their heads that a very important reason for the traffic and interest in their department before the war rested to a large extent upon a continuous flow of new

Visible Quality in the Package Can Reflect the Invisible Quality of the Product!

Leading Manufacturers of Ethical Drugs, Recognizing That Fact, Give Preference to



Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
BOXBOARDS

FOR FINE FOLDING CARTONS

CUSTOM MADE FOR EVERY ORDER
SUPERIOR PRINTING SURFACE
BRIGHTER — SMOOTHER
HIGHER VARNISH GLOSS
ASSURED UNIFORMITY
CONTROLLED COLOR MATCHING
BRIGHT FAST AND SOIL RESISTANT COLOR
LUSTROUS BRUSH FINISHES AND EMBOSSINGS

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives

H. B. Royce, Detroit
Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellog, St. Louis
Norman A. Buist, Los Angeles

and interesting products, and they feel that there has been a loss of zest and enthusiasm from the consumer for their department because manufacturers have largely fallen down in a creative way.

This complaint is not entirely true because there have been a great many new products in the last several years and a great deal of new packaging. But there is an element of truth in the fact that these few years have seen a very low dip in the percentage of new people coming into the industry with new ideas and a low dip in packaging creation.

There has been a great deal of repackaging in this trade and a certain amount of creative work in new packaging designs. But it must be admitted that the promises which were held forth during the war years when packaging material was severely restricted, and when there was a succession of promises of wonderful new materials and applications, that the average person in the industry feels something of a let-down when he reviews the results of these last few years.

So far as packaging goes, there does seem to be a let-down in the zest, enthusiasm, daring and creativeness which distinguished perfume and cosmetic manufacturers throughout their history.

Seller Beware

A few months ago we recorded the experience of a manufacturer in our trade who decided that his business would be in a much more healthy condition if he reduced the number of retail stores stocking his merchandise and provided an active, more concentrated policy of cooperation with these retail stores.

One of the stores which this manufacturer dropped was a retail druggist who promptly appealed to his local branch of the Department of Justice. A Department of Justice lawyer had the manufacturer on the carpet, told him that he could not drop this druggist and even persisted after the manufacturer showed that the druggist had caused him a great deal of credit difficulty and that the account had the previous year been put in the hands of a collection agency. This matter is apparently resting, with more or less veiled and vague threats from the Department of Justice that the manufacturer could not do things like that, and the retort of the manufacturer that his lawyer had advised him to stand on his constitutional rights to pick and select his own customers.

This case was very puzzling to us because it seemed to go so clearly beyond any law or interpretation which we have on our books and because the Department of Justice blandly refused to cite any law under which they were taking this action.

We do somewhat understand this situation now because a recent article in "Business Week," headed "Crying-Towel," cites quite a number of similar instances in other industries. It appears that there is a little known corner of the Justice Department which is beginning to feel its oats and throw its weight around. This Department, which has field offices in 12 cities, is staffed by a group of lawyers who specialize in the problems of small business and who try to work miracles for small business men, sometimes with blindness where the law is concerned.

In one case cited, a wholesale distributor of hardware in a small western town lost the account of a manufacturer, who turned his territory over to a bigger distributor in a nearby city. The Anti-Trusters discovered that the small distributor had pioneered the line in that territory and so brought pressure to bear on the manufacturer. The story is that the little distributor still carries this line. It might be said here that the discontinuing of the little distributor was a matter of bargaining or politics with the large distributor and was in that sense an immoral business action, since the little fellow had done an excellent job.

But it might also be the case that certain necessities for reforming distribution and cutting down costs made this move a very sensible and even necessary step in strengthening or saving the manufacturer's business.

In another case a retailer reported a manufacturer who refused to supply him with watches. He stated that he had been cut off arbitrarily. The Department of Justice acted on this issue too, but were compelled to retire somewhat in confusion when they discovered that the retailer had been deliberately and aggressively carrying on a cut-price campaign on this watch which was a fair trade item.

Another retailer, a shoe repair man, complained that a manufacturer would no longer supply him with a line of rubber products which he had handled for years. The manufacturer stated that he had spent a lot of time and money helping this retailer build up his business, but that he had discovered that the retailer had been switching customers to another brand, using the manufacturer's brand to attract these customers. The manufacturer's sales with this retailer had declined to a point where he wasn't worth contacting.

We have never heard of anything in law or court decisions which state that a producer or a distributor, once he has sold a customer and opened an account, must continue to sell that account forever after, no matter how seriously it will affect the financial stability of the company, the cost of doing business or the integrity of the trade-mark.

We have never heard of a law or a court decision which states that a man cannot drop a customer for any damn reason that suits him, including the color of the customer's eyes or the way he parts his hair.

But there does seem to be in this Division of the Department of Justice an opinion that the weight of a Bureau if applied with sufficient bluster can overcome the decisions of Congress and the Courts. And also there seems to be a definite philosophy on the way of developing, that is pointing in the direction of denying the producer the right to select and to hire and fire the distributors or retailers who will comprise his sales force.

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing sales for the month of January 1950 as compared with the same period in 1949.

	Department Stores	*Drug Stores*		*Department Stores*	*Drug Stores*
Atlanta	+8	+4	Minneapolis	–4	+3
Baltimore	–3	–4	Milwaukee	–10	+7
Birmingham	–3	–6	Newark	–5	–11
Boston	+2	–1	New York	–5	–3
Chicago	–5	–2	Philadelphia	–5	–1
Cincinnati	+5	–5	Pittsburgh	–11	+2
Cleveland	–4	–2	Providence	–5	0
Dallas	*X*	+9	St. Louis	+1	–4
Detroit	–10	–6	San Francisco	–7	–12
Los Angeles	–4	–8	Seattle	–12	–5

NEW PRODUCTS AND NEW PACKAGES

ABBOTT LABORATORIES announces the development of five new products. A penicillin preparation that marks an advance in repository penicillin therapy will be introduced under the name Abbocillin-DC. Calcium Gluconate-Glucoheptonate Solution is indicated in the treatment of tetany produced by low calcium levels, regardless of the cause, and may be administered intravenously or intramuscularly. The Abbott Dulcet line offers an accurately standardized medication, Penicillin Potassium Buffered Tablets, in the form of green mint-flavored sugar candy. A synthetic, stable, water-soluble form of estrone for oral administration, providing conjugated natural estrone in an odorless and practically tasteless tablet, will appear on the market under the name, Sulestrex Piperazine; and Bevidox Concentrate Solution, prepared by a fermentation process using a Streptomyces culture, is a vitamin B_{12} product designed for subcutaneous or intramuscular administration.

BIO RAMO DRUG CO., INC., announces that as of March 15 the sterile, multiple dose vial of crystalline vitamin B_{12}, introduced to the medical profession as Claretin-12 Injection will be distributed under the new name of Rametin Injection.

The ERNST BISCHOFF COMPANY, INC., introduces MY-B-DEN, a biochemical, adenosine-5-monophosphate, to be used in the treatment of the symptoms and lesions caused by chronic venous insufficiency. The medication may be administered either by intramuscular injection or in the form of sublingual tablets.

BURROUGHS WELLCOME & CO. presents Vasoxyl brand methoxamine hydrochloride injection, a new sympathomimetic drug which produces a prompt and prolonged rise in blood pressure following parenteral administration.

CIBA PHARMACEUTICAL PRODUCTS, INC., introduces two new linguets. Percorten, desoxycorticosterone acetate, heretofore available only in a solution for injection and as pellets for implantation, now are issued in the form of Percorten Linguets; and Eticylol Linguets, containing 0.5 mg of ethinyl estradiol especially prepared to permit absorption through the oral mucosa, are being placed on the market.

COTY has brought out a new array of eye make-up aids in coloring designed to enhance every complexion scheme. They include eye-tint, in shades of mauve, blue, brown, gray and green; a finer-than-ordinary eye-crayon; mascara, in brown, black and navy; and to compliment these products, a new rouge-tint has been added to the line . . . coral red, medium, geranium and raspberry.

EATON LABORATORIES, INC., introduces to physicians a new antihistamine under the name, Foralamin. Foralimin fumerate, the brand of methafurylene fumerate, is supplied on prescription only, as 50 mg. scored, gray tablets in bottles of 100 and 1000.

ELGIN AMERICAN is offering its nationally advertised Round-the-Neck-Mirror as a feature of its American Beauty line being introduced to retail druggists. The American Beauty line includes a special Mothers' Day Deal of nine handsome compacts adaptable also for graduation promotion. Other features of the line include lighter cigarette cases and comb, brush and, mirror sets in a wide variety of design.

ENDO PRODUCTS INC. announces the adoption of a new package and label for its medicinal products. The new design, basically simple and functional in character, suggests the ethical nature of the products, while emphasis is stressed on the sales appeal quality.

MAX FACTOR, HOLLYWOOD has evolved a complete new line of cosmetics revolutionizing his cream and lotion beauty aids both in formula and in packaging features which will be presented under the name, New Worlds of Beauty. Satin Flow Cleansing Cream will be introduced in a colorful plastic dispenser of ingenious design. Another "first" will appear in the form of a night cream stick called Night Facial Stik. The Worlds of Beauty Lotion is packaged in an unbreakable container that looks like a new planet and eliminates the necessity of the conventional cap. A small purse-size dispenser is supplied for the lotion in an attractive metal case.

HINDS Honey & Almond Fragrance Cream appears on the market in a white opaque plastic dispenser, which is refillable, economical and unbreakable. The new Hinds lotion is lanolin-enriched quick-drying and non-sticky.

McNEIL LABORATORIES announces the marketing of Elixir Syndrox Hydrochloride, a palatable, amber-colored liquid indicated in mild depressions, obesity, narcolepsy, and as an adjunct in the treatment of acute and chronic alcoholism.

DR. JULES MONTENIER announces that his firm is releasing Squeeze, a new spray deodorant, in a one ounce flexiplastic bottle. The white dispenser features a cap securely attached by a sturdy braided cord of the same material as the bottle.

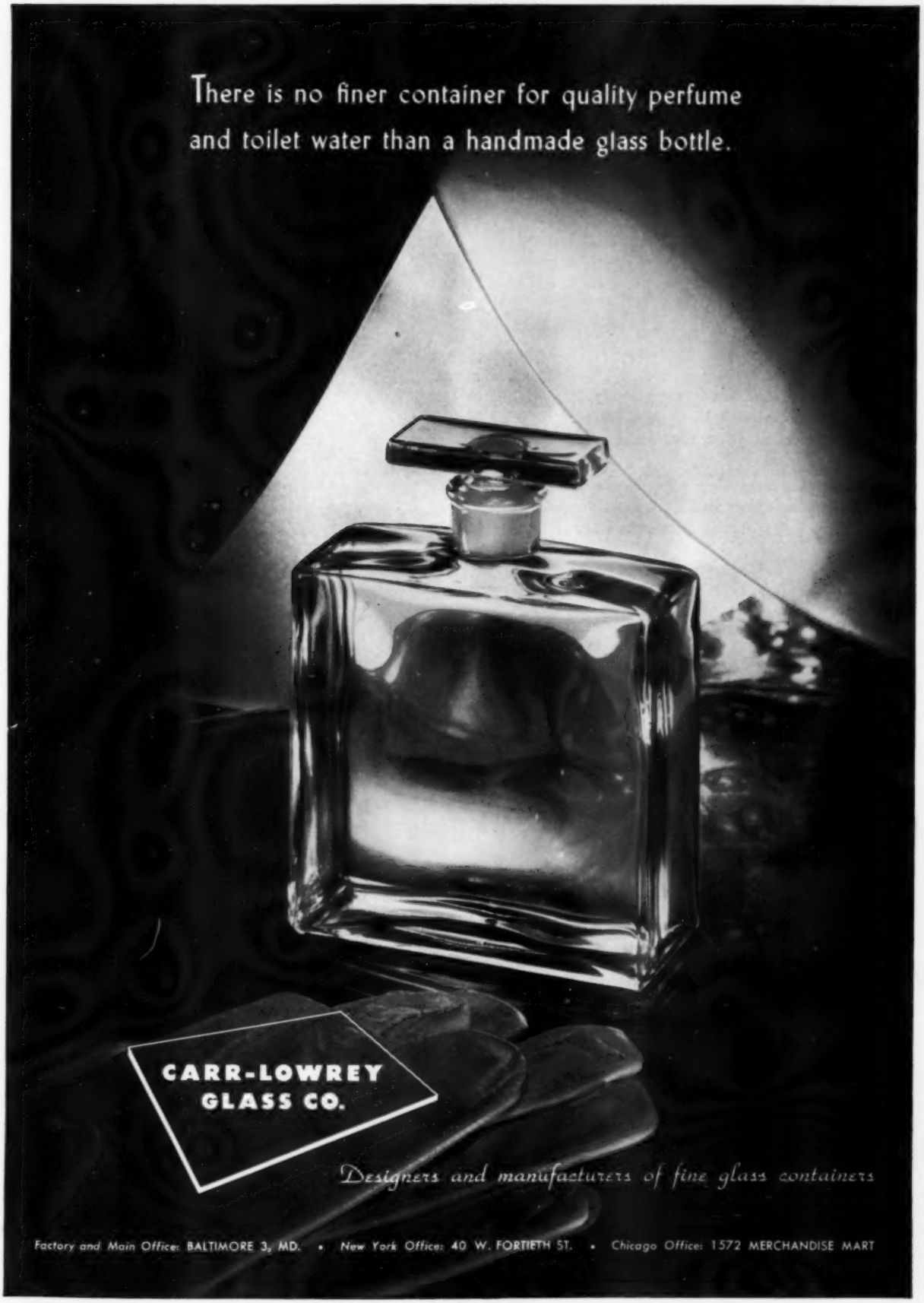
NUMOTIZINE, INC., introduces Cremacal, analgesic calamine ointment for relief of itching and pain accompanying insect bites, poison ivy and skin irritations. Spread thickly over the surface, Cremacal dries to form a solid yet pliable coating which resists scratching and protects the area against external irritation.

JEAN PATOU announces that L'Heure Attendue is now available in small bottles of elegant design suitable for gift-giving. A miniature "thousand eye" bottle contains one sixth of an ounce of the scent, while a third of an ounce is contained in a tall crystal bottle with a monogrammed stopper.

PLAX CORPORATION has added three new stock shapes to the line of standard Plaxpak polyethylene bottles. With these additions, Plax now offers a range of six stock molds in squeezable, unbreakable bottles.

KATHLEEN MARY QUINLAN, INC., has developed the new Quin-Kit for home, office or travel use. The

(*Continued on page 487*)


There is no finer container for quality perfume
and toilet water than a handmade glass bottle.
CARR-LOWREY
GLASS CO.
Designers and manufacturers of fine glass containers
Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

New Perfection
DROPPING PARTS
For Dependable Performance

As originators and world's largest manufacturers of screw-cap dropping parts, Pennsylvania Glass Products Co. has built up an outstanding record of dependability—in product, in service and in business integrity. This hard-won reputation is your assurance of satisfaction, your guarantee of quality.

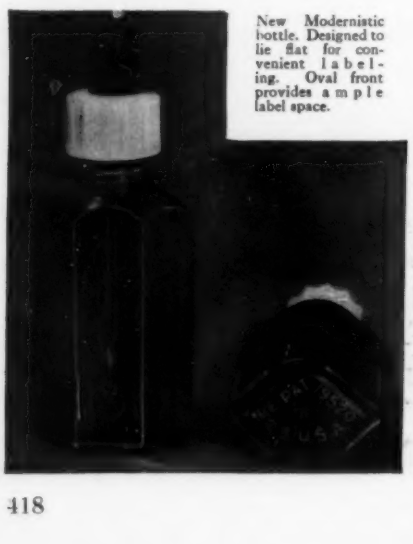
New Perfection dropping parts are available in a wide variety of styles, colors and sizes to fit your own bottles or can be supplied with our bottles in sizes and colors listed below.

RUBBER BULBS
in natural rubber for general use or AMEKINE SYNTHETIC RUBBER which is highly resistant to the swelling which ordinarily results from use with oil preparations. Various colors and styles.

DROPPER GLASSES
plain or CALIBRATED IN COLOR. The correct glass for every requirement. Careful manufacture assures uniformity and cleanliness. Many styles in any length.

CAPS
of plastic or metal are designed for perfect closure, strength and attractiveness. Many styles, colors and sizes.

BOTTLES
in an eye-catching modernistic style in Amber, Blue, Green or Clear glass. Sizes : 2 cc. ⅛, ¼, ½, 1 and 2 oz.



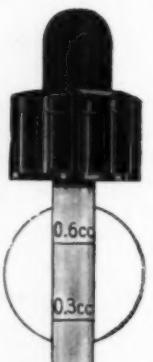
New Modernistic bottle. Designed to lie flat for convenient labeling. Oval front provides ample label space.

#1
Non-rolling, extra-depth Bakelite Cap: thick flange rubber bulb; Saftee ball glass.

#3
Regular plastic cap: thin flange rubber bulb; semi-blunt glass.

#4
Single shell metal cap; oil-resisting Amekine synthetic rubber bulb, blunt glass.

NEW PERFECTION Dropper Glasses Calibrated IN COLOR



New Perfection Dropper Glasses can be marked in color at any levels which you desire, making it easy and convenient for customers to administer your product in specific doses.

#2
Non-rolling, extra-depth Bakelite cap; thick flange rubber bulb; special bent glass (CALIBRATED IN COLOR).

Write for Samples and Quotations

PENNSYLVANIA
GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH (13), PA., U.S.A.

A STOCK BOTTLE with rare classic distinction

C-39

If you have a product designed to grace Milady's dressing table, the charm and classic simplicity of "C-39" will add to its sales appeal and acceptance. And, in addition to the beauty and grace of design, you are assured the high standards of traditional SWINDELL quality.

C-39 is available from stock in the following sizes: ½ ounce, 1, 2, 4, 6, 8 and 16 ounce. May we send you a sample?

3 other popular STOCK BOTTLES

Beauty of design, durability, uniformity and dependability are characteristic of *all* SWINDELL bottles, of which these illustrated are typical. Available in sizes for ⅛ ounce to 16 ounces.

PRIVATE MOULD BOTTLES

Creative and imaginative designs for private mould bottles—hand made or machine made—are a SWINDELL specialty. Call on us for ideas.

When you think of bottles, think of

Swindell

SWINDELL BROTHERS, BALTIMORE, MD., 40 W. 40th ST., NEW YORK-18, N. Y. - ROBERTO ORTIZ, HAVANA, CUBA

METAL CONTAINERS *and* CLOSURES
by
BRIDGEPORT

Vanities
Jar Caps
Bottle Caps
Drawn Talc Containers
Powder Boxes
Perfume Vial Cases and Caps
Lip Brushes
Dry and Paste Rouge Cases
Lipstick Containers --- Swivel, Slide, Automatic

and

Other Special Metal Products for the Cosmetic Industry

THE BRIDGEPORT METAL GOODS MFG. CO.
Established in 1909
BRIDGEPORT CONNECTICUT

WANT
AEROSOL BOMBS
FILLED?

G. BARR & COMPANY, dependable name in private label manufacture, has now added the newest and finest equipment to fill your AEROSOL BOMBS. Capacity of more than one million bombs a month insures prompt delivery. Experienced laboratory guarantees control and is always at your service. Requests for information will receive immediate attention.

G. BARR & COMPANY
MANUFACTURING CHEMISTS
1132 WEST 37TH STREET, CHICAGO 9, ILLINOIS
COMPLETE MANUFACTURING AND PACKAGING SERVICE OF ANY FORMULA

FOR liquids of any consistency, pastes and creams, PERL MACHINES make possible

FASTER production at lower cost! 30 years of experience make available for you the most reliable and accurate

FILLING Equipment. PERL MACHINES require but one unskilled operator to make their

USE most economical, while unexcelled in efficiency.

"PERL" guarantees satisfaction in every respect for

MACHINES which have provided the solution to filling problems in many an instance where others failed.

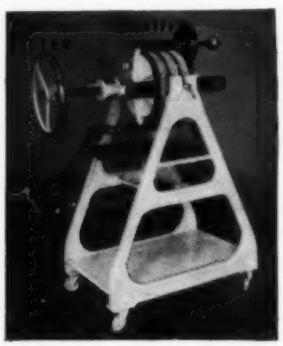
PERL BOTTLE FILLING MACHINE

Your Production Problem May be Solved by one of These PERL Machines

- Precision Universal Filling Machines.
- Straight Line Vacuum Filling Machines.
- Can Filling Machines.
- Piston Filling Machines.
- Tube Filling and Closing Machines and many more.

For detailed information please write to

PERL
MACHINE MFG. CO.
72 Jay St. Brooklyn 1, N.Y.



ERTEL
BACTERIA RETENTIVE FILTERS

...sizes from 1 to 10 liters of aqueous solution per minute

Balanced body of filter permits easy rotation to vertical operating position. Illustration shows filter in loading position.

★ One of the most widely used filters for safeguarding saline and dextrose solutions, sodium citrate for whole blood and blood plasma preparation, penicillin, intravenous fluids, etc. Provides dual filtration and special fibre removal feature. Can be provided with special steam generating unit for complete sterilization of circulatory passages and filter disks. Described in Catalog 18, please ask for your copy.

ERTEL SERVICE: Send sample of your product for laboratory test. We will filter and return with enough recognized Ertel Asbestos Filter Sheets to prove the superior results in your plant.

ERTEL ENGINEERING CORPORATION
KINGSTON NEW YORK
Representatives in Principal Cities

MANUFACTURERS OF HIGH GRADE ERTEL ASBESTOS FILTER SHEETS
ASBESTOS SHEET FILTERS • CYLINDER TYPE DISC FILTERS
PYROGEN FILTERS • VACUUM BOTTLE FILLERS • MIXERS • CAPPERS
CENTRIFUGAL AND SELF-PRIMING STAINLESS STEEL PUMPS

RICHFORD SPILLPROOF* **PERFUME FLACONS**

SPILLPROOFS

Top Left: Plain Round (1 dr.) *Lower Left:* Pinched Square (1 dr.)
Top Right: Plain Round (1½ dr.) *Lower Right:* Watch Case (1 dr.)

SPILLPROOFS IN METAL
Plain round (1 dr.) encased in highly polished Brass container with flush cap. Tarnish-Proof

PAT PEND

RICHFORD CORPORATION
251 FOURTH AVENUE • N. Y. 3, N. Y.

*TRADE MARK

METAL CONTAINERS *and* CLOSURES
by
BRIDGEPORT

Vanities
Jar Caps
Bottle Caps
Drawn Talc Containers
Powder Boxes
Perfume Vial Cases and Caps
Lip Brushes
Dry and Paste Rouge Cases
Lipstick Containers --- Swivel, Slide, Automatic

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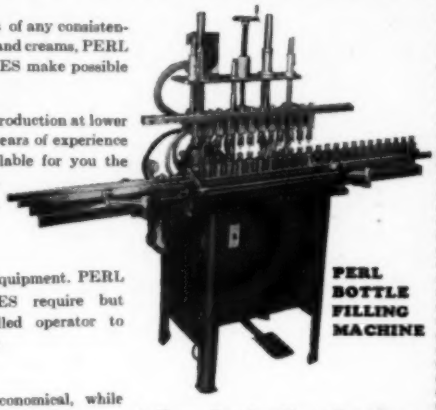

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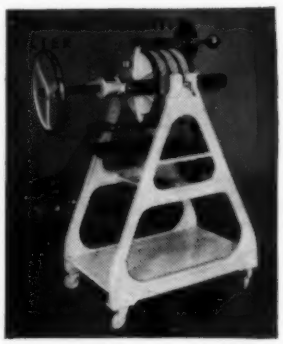

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Top Right: Plain Round (1½ dr.) *Lower Right:* Watch Case (1 dr.)

SPILLPROOFS IN METAL
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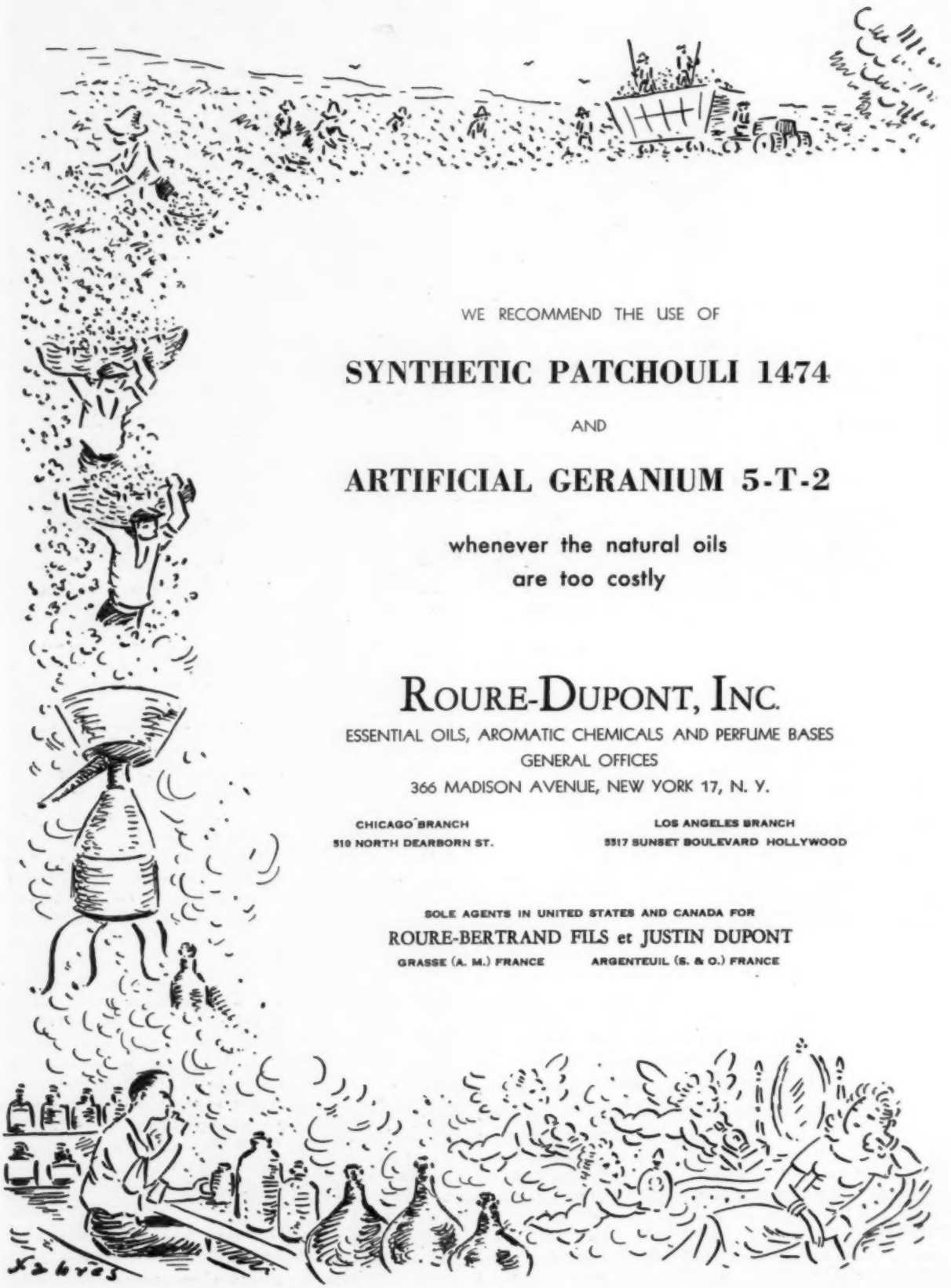

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NEWS...

Palmer Heads A.D.M.A.

Carleton H. Palmer, Chairman of the Board of E. R. Squibb & Sons, was elected president of the American Drug Manufacturers Association at the annual meeting held at Boca Raton, Fla. March 27 to 30. Mr. Palmer succeeds R. Lincoln McNeil, of McNeil Laboratories. Other officers elected were Donald S. Gilmore, of the Upjohn Company, First Vice-president; John L. Smith, Chas. Pfizer & Co., Second Vice-president, James C. Chilcott, Chilcott Laboratories Division of the Maltine Company, Third Vice-president; and M. C. Eaton, Treasurer.

CARLETON H. PALMER

To Market Rare-Galen Items

White Laboratories, Inc. is taking over completely the marketing of the products of Rare-Galen, Inc., a subsidiary of Nopco Chemical Company, a preliminary arrangement which will substantially expand the scope of White's activities in the pharmaceutical field.

At the same time. Pharmaco, Inc., a subsidiary of White Laboratories, is taking over the marketing of "Admiracion" shampoos and hair preparations from Admiracion Laboratories, another subsidiary of Nopco Chemical Company.

Abbott Wins Design Awards

Abbott Laboratories won six of the 23 awards given at the twenty-third annual exhibition of Design in Chicago Printing sponsored by the Society of Typographic Arts at the Art Institute of Chicago.

Health Information Posts

Herbert Hoover has accepted chairmanship of the Citizens' Advisory Committee of the Health Information Foundation, according to Admiral William Blandy, Foundation president, who also announced the appointment of Kenneth Williamson as executive secretary of the Foundation. Mr. Williamson had formerly been assistant director of the American Hospital Association. The Foundation was organized in February to compile and disseminate factual data on national and local health facilities and their availability to the people.

KENNETH WILLIAMSON

SKF Appointments

George O. Huey, employment manager of Smith, Kline & French Laboratories, was promoted to the position of personnel director, according to O. J. May, vice-president. Additional appointments include Gordon T. Way, former personnel director, who was named administrative department head of the research division, and William Steytler Jr., who was appointed employment manager.

Drug & Chem. Ass'n Meeting

The next regular dinner meeting of the Cincinnati Drug & Chemical Association will be held on Friday, April 28th, at 6:00 p.m. at the Hotel Alms in Cincinnati. Kenneth S. Watson, assistant director of the Ohio River sanitation commission, will discuss various aspects of purification of water, anti-pollution along the Ohio River, and industrial progress in the Ohio River Valley.

Wohlfort Honored by Fritzsche

Gustave A. Wohlfort, comptroller of Fritzsche Brothers, Inc., was admitted to the company's 25-year club at a dinner in his honor at the New York Athletic Club in February. The celebration was presided over by John H. Montgomery, treasurer and first vice-president, in the absence of President F. H. Leonhardt who was out of town.

Lantz with Bristol-Myers

Walter P. Lantz has joined Bristol-Myers Company as advertising manager, according to Robert B. Brown, vice-president and general manager of the company's operating division. Mr. Lantz had formerly been associated with the Lambert organization, where he was in charge of market research.

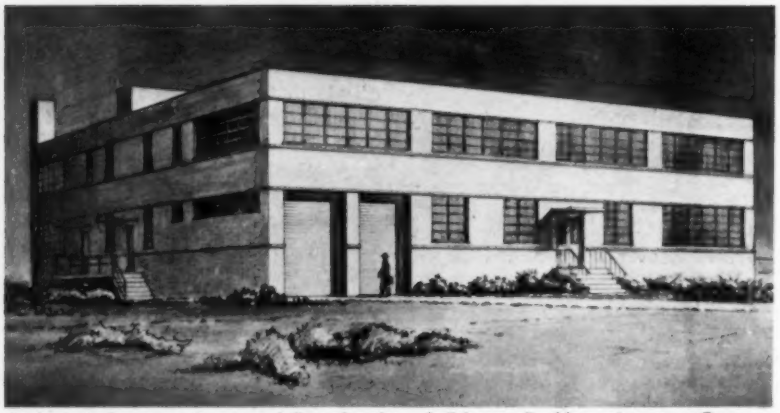
WALTER P. LANTZ

Wuest Resigns Due to Health

The resignation of Dr. H. M. Wuest as director of research of the Warner Institute for Therapeutic Research because of ill health was made known by Elmer H. Bobst, president of William R. Warner & Co., Inc. He will continue as vice-president and director of the company. Additional changes in the Warner Institute include the appointment of Dr. U. V. Solmssen as administrative director, while continuing as assistant director of research. Dr. S. Krop was named director of Pharmacology & Chemotherapy of the institute, succeeding Dr. N. Ercoli who resigned to assume the directorship of the Institute Sieroterapico Milanese Serafino Belfanti in Milano, Italy.

Pharmaceutical Rep. in Italy

Laboratorio Farmochimico Bolognese, Via Farini N. 2, Bologna, Italy is desirous of contacting American pharmaceutical manufacturers who wish to enter the Italian market.



Architect's drawing of proposed Canadian branch (Montreal) of Inter-American Corporation, subsidiary of Smith, Kline & French Laboratories. The two-story building will include facilities for the manufacture of SKF liquid pharmaceutical specialties, a finishing section, control laboratory, storage areas, shipping platform, addressograph section, locker rooms, and general offices.

Frascati Joins Perfumery Associates

Dr. A. T. Frascati, associated with various leading firms in the perfume and essential oil industry over the past thirty years and one of the founders of the American Society of Perfumers, has been elected a director and vice-president of Perfumery Associates, Inc., formerly Jean Niel, Inc., New York. Dr. Frascati has assumed the new duties of technical director of the firm and in that capacity will be available to his many friends and customers for consultation. His son, Richard A. Frascati divides his time between research and technical representation.

Henry Retaillau and Robert A. Luthy were reelected directors of the corporation and will continue to serve as president and secretary-treasurer. J. R. Elliott will continue as special representative of the company. The company represents Jean Niel of Grasse, France, in this country.

Hutton on 4-Week Trip

Steele C. Hutton, vice-president in charge of sales of Hirestra Laboratories, Inc., left on a four-week trip through the Southeast, Texas, and the Midwest in the latter part of March. He has been visiting the various Endocreme accounts.

Will Represent Plax Corp.

E. W. McKinney and A. F. Duemler, Jr. have been appointed to newly established sales offices in Houston, Texas, and Cincinnati, Ohio, respectively, by the Plax Corporation, Hartford, Conn. The Houston office is located at 2615 Fannin Street and the other, at 104 East 4th Street, Cincinnati.

Ayerst Appoints Dr. Scanlan

Dr. John S. Scanlan was appointed to the staff of the medical and research division of Ayerst, McKenna & Harrison Limited, division of American Home Products Corporation.

DR. JOHN S. SCANLAN

Lane Named V.P. Pond's Extract

Edward D. Lane has been elected vice-president and director of the Pond's Extract Co. and appointed director sales for the company. F. H. Orr was simultaneously appointed sales manager, and Leslie M. Faulds, merchandise manager.

Bennett With Dow 50 Years

Earl W. Bennett, chairman of the board of the Dow Chemical Company, celebrated his fiftieth anniversary with the company in March. Mr. Bennett joined the firm as its first bookkeeper and was named auditor in 1902; assistant treasurer and assistant secretary in 1905; director in 1927; vice-president in 1931; treasurer in 1934, and was elected board chairman last year following the death of Dr. Willard H. Dow.

SKF to Construct New Plant

Ground-breaking for a new pharmaceutical manufacturing and distributing branch of Smith, Kline & French Inter-American Corporation will begin shortly in suburban Montreal, according to Miles Valentine, vice-president of the company. The $160,000 plant will be located on a 1½-acre tract on King's Park Road in Ville de St. Laurent, approximately five miles northwest of Downtown Montreal.

The manufacture and distribution of SKF products in Canada has been handled by the Leeming Miles Co., Ltd., of Montreal, from 1926 to the present time and will be taken over by the SKF branch on its completion. Richard Pfizenmaier, Montreal manager who will be in charge of the new branch, announced that A. Lovell Phillips, president of Leeming Miles, will be closely associated with the new SKF unit in an advisory capacity.

SKF Plans New Expansion

Smith, Kline & French Laboratories are making preparations for an addition to their modern pharmaceutical plant and laboratories at 1530 Spring Garden Street. The wing will be located on the east side of the new building which has been in operation about a year and a half. The cost and degree of expansion have not been determined as yet.

Malmstrom Appoints Richey

Thomas B. Richey, Jr. was appointed production manager of N. I. Malmstrom & Company, and will be in charge of the plant now being erected.

THOMAS B. RICHEY, JR.

DCAT Get-Together

Plans are being made to hold DCAT "Ol' Timers' Nite" on May 10th at the Hotel Astor, according to the section activities committee, headed by P. Walker, Jr.

Bristol-Myers Moves Branch

Bristol-Myers Company held a housewarming at its Western branch, now located on 74 Montgomery Street, San Francisco, in February. Harry B. Rooney, manager of the branch, acted as host and was assisted by Bruce W. Mansfield, assistant branch manager. Representing the New York offices of the company were Lee H. Bristol, president, and George S. McMillan and E. G. Ladewig, vice-presidents. In addition to representatives of many wholesale drug houses in Northern California, representatives of the California State Board of Pharmacy and Richard Hopelain, secretary of the Northern California Retail Druggists Association attended the affair.

The recent re-arrangement in its warehouse facilities permitted the removal of the company's branch offices from 14 King Street to the Call Building at the new address.

Among the guests attending the Bristol-Myers house-warming at its Western Branch in San Francisco in February were, left to right, Harry Johnson, president, Allied Drug Travelers, Oakland, California; Harold Brehm and Roy Johnson, Coffin-Redington Company, San Francisco.

Named Engineering Mgr. by Lever

Charles W. Deane, formerly chief engineer for E. R. Squibb & Sons, was

CHARLES W. DEANE

appointed general engineering manager of Lever Brothers Company, according to William H. Burkhart, vice-president in charge of manufacturing and traffic. Dr. Deane will direct engineering operations of all Lever plants and coordinate new construction projects.

Schwarz on 6-Week Trip

David R. Schwarz, an officer of Schwarz Laboratories, Inc., and manager of its manufacturing plant at Mt. Vernon, N. Y., left on March 17th for a six-week trip to England, France, Belgium, Italy and Switzerland. The purpose of his trip is to enable Mr. Schwarz to evaluate the increasing demand in Europe for certain rare chemicals and pharmaceuticals produced by the laboratories.

Singleton to Visit Factories

Leslie B. Singleton, Ph. C., A.I.P.A., managing director of the General Advertising Company of London, Ltd., will arrive in New York April 26th to visit American Pharmaceutical factories. Copies of a new brochure describing the

LESLIE B. SINGLETON

company's specialized facilities for handling pharmaceutical publicity will be sent to American manufacturers on request to 18 Charing Cross Road, London, W. C. 2.

Hopkins to Expand Activities

With the appointment of Karl B. Rosen as vice-president in charge of sales, J. L. Hopkins & Co. is planning to expand its sales activities in the field of botanical drugs and extracts, according to Louis Theis, president. The company also expects to extend its operations with the introduction of new pharmaceutical products. Mr. Rosen, who will take charge of both domestic and foreign sales, was formerly sales manager of Mann Fine Chemicals and production manager for William R. Warner & Co., respectively.

Davis and Geck Appoints

W. M. Blankenship was appointed sales manager and Albert J. Weisbrodt, advertising manager, of Davis and Geck, Inc. The company also announces that H. M. Clark, sales manager, was appointed director of sales service and C. T. Riall, advertising manager, was appointed assistant sales manager. J. C. Stuart continues in his position as assistant sales manager and F. M. Rhatigan continues as sales promotion manager.

Chicago Chemist Soc. Meets

The Chicago Chapter of the Society of Cosmetic Chemists met on April 11 at Henrici's Restaurant to hear talks relating to the cosmetic chemist field. Eleanor Nangle, beauty editor of the Chicago Tribune, spoke on "What the Cosmetic Chemist should know about the problems of beauty editors," while Dr. S. D. Gershon, managing director of research of the Pepsodent division of Lever Bros., discussed "What the beauty editor should know about the problems of the chemists."

Study SKF Operations

On a recent visit to the pharmaceutical plant of Smith, Kline & French Laboratories, officials of Menley & James, Ltd., British manufacturing distributors of SKF products, inspected an infra-red spectrometer operated by a technician in the control laboratories of the manufacturing division. F. M. Rivinus, executive vice-president of the SKF foreign division, acted as host to the visitors, C. Harrison Ratcliffe, co-managing director of Menley & James, and Sidney G. E. Stevens, chief chemist of M. J.

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Givaudan Factory in England

Givaudan-Delawanna, Inc. announced the opening of a new factory for the manufacture of aromatic chemicals in England in the March issue of "The Givaudanian." The factory is situated on the outskirts of London in Warlingham, Surrey, and consists of a number of buildings which had formerly been used as research laboratories. It will be chiefly devoted to the manufacture of aromatic chemicals which have not yet been made in England, for which are not available from domestic production in qualities and grades demanded in the British line.

Chemist Ass'n to Meet

The Association of Consulting Chemists & Chemical Engineers, Inc. will hold a dinner meeting on Tuesday, April 25 at 5:00 p.m. at the Shelburne Hotel, 37th Street and Lextington Avenue, Skyline Room. These meetings will be in the form of a symposium on "Professional Chemical Services by Consulting Associates and Individual Consultants." Speakers will be Dr. Robert S. Aries of R. S. Aries and Associates, Brooklyn, and Charles Davidoff, New York City.

25 Years With Ungerer & Co.

Joseph Oestel, in charge of Ungerer's New York shipping and filling departments, completed twenty-five years' continuous service with the company in March. He was presented an engraved gold watch by Kenneth G. Voorhees, president, commemorating the occasion.

New Pharm. Lab. at Columbia

A new laboratory for instruction and research in industrial pharmaceutical manufacturing has been established at Columbia University College of Pharmacy. The laboratory provides machinery for the study of the various procedures involved in the manufacture of compressed and coated tablets, ointments and creams, extracts, tinctures, emulsions and other liquid preparations. The equipment includes mixing and sizing mills, large and small scale tablet compressing machinery, coating pans, a colloid mill, vacuum still and vacuum dryer, and steam - jacketed kettles. Courses of instruction have been developed for both day and evening work under the direction of Professor E. E. Leuallen and Professor Leonard T. Chavkin.

50 Years With Upjohn

W. F. Little, general superintendent, the Upjohn Company, completed fifty years of uninterrupted service with the company last month. He was the first

W. F. LITTLE

employee to have established this record. Mr. Little started with Upjohn in 1900 as a plant production worker and was appointed to his present position in 1943.

Cahoon Resigns From Gair

Sumner R. Cahoon resigned as vice-president in charge of container operations of Robert Gair Company, Inc. last month, according to George E. Dyke, president. Mr. Cahoon will continue with the company in an advisory capacity until August first, when he plans to join the Binghamton Container Co., Inc., Binghamton, N. Y.

William T. May, sales manager of the company's container division, has been placed in charge of the container operations.

Weglein Returns From S. A.

Arthur A. J. Weglein, president of Daggett & Ramsdell, Inc., recently returned from an extensive air trip to Central and South America, where he visited Mexico, Chile, Argentina and Brazil. Mr. Weglein found local business conditions "quite satisfactory," in spite of inflationary tendencies.

Receives Lilly Award

Dr. William Shive of the University of Texas received the $1000 Eli Lilly & Company Award in Biological Chemistry late last month at the Houston Session of the American Chemical Society's 117th national meeting. The prize, which includes a gold medal, was presented to Dr. Shive at a general assembly of the society in the Shamrock Hotel, according to Dr. Ernest H. Volwiler, society president, and executive vice-president of the Abbott Laboratories.

Martin Heads Mfg. Dept.

Marius J. Martin was appointed head of the manufacturing department of Antoine Chiris Company, Inc., according to Frederick E. Shoninger, president. Mr. Martin has been associated with the manufacturing side of the business for thirty-four years.

Promoted by Abbott

Dr. Richard K. Richards, director of pharmacological research at Abbott Laboratories, and Dr. Marlin T. Heffler, assistant director of research, have been promoted to associate directors of research. Dr. Richards will continue to direct the pharmacological department.

Tablet processing equipment in new laboratory at Columbia University College of Pharmacy. Stainless steel mixer in left foreground is tilted forward for discharge of contents. In center is oscillating granulator and at the right is a 20-tray drying closet equipped with automatic temperature control and heated air circulation.

Owens-Illinois Appointments

Edward A. Randlett, Baltimore Branch salesman of Owens-Illinois Glass Company, was named western region closure and plastics sales manager with

EDWARD A. RANDLETT

WILLIAM J. THOMPSON

headquarters in the Chicago branch at 121 West Wacker Drive. He will be succeeded in Baltimore by William J. Thompson, Pittsburgh branch salesman, who has been with Owens-Illinois since 1934, according to Smith Rairdon, vice-president and general sales manager.

Firmenich Visits U. S.

Andre Firmenich, Firmenich & Cie, Geneva, Switzerland, recently arrived in New York for his annual visit to this country and to the American company, Firmenich & Co., N. Y. Shortly after his appearance here, Mr. Firmenich left with Charles Bryan, American partner, for a business trip to the Pacific Coast. Reports seeping back from this busy area say that one of the two landed a record sailfish or a marlin at Guaymas, Sonora, Mexico.

Goby Visits U. S.

Francois Goby, director of Tombarel Freres, Grasse, France, has arrived in this country for his regular visit and plans to call on friends in the trade.

Gillise Named Sales Mgr.

Frank Gillise has been appointed general sales manager of Sigma Products Corporation, New York.

A.D.M.A. Golf Winners

Forrest Teel, of Eli Lilly & Co., was the winner of the President's Trophy awarded for tournament low net at the recent meeting of the American Drug Manufacturers' Association at Boca Raton, Fla. Other prize winners were: John G. Searle, qualifying low gross; Stuart V. Smith, Wyeth, tournament low gross; F. P. O'Brien, G. D. Searle & Co., first flight low gross; Leslie D. Harrop, Upjohn Company, first flight low net; Raymond Rice, Eli Lilly & Co., first flight second low net, George F. Smith, Johnson & Johnson, second flight low gross; J. H. F. Dunning, Hynson, Westcott & Dunning, second flight low net; E. S. Retter, Eli Lilly & Co., second low net; Joseph Fistere, Mallinckrodt Chemical Works, third flight low gross; J. L. Hunt, Armour Laboratories, third flight low net; W. L. Dempsey, Sharp & Dohme, second low net; Henry Gadsden, Sharp & Dohme, fourth flight low gross; M. W. Smith, J. T. Baker Chemical Co., fourth flight low net; Floyd K. Thayer, second low net; G. F. Pauley, Monsanto Chemical Co., fifth flight low gross; Harry S. Howard, fifth flight low net; John G. Bill, Sharp & Dohme, second low net; G. C. Bradshaw, Mallinckrodt Chemical Works, sixth flight low gross; Ralph Clark, J. T. Baker Chemical Co., sixth flight low net; A. Lee Cladwell, Eli Lilly & Co., second low net; J. B. Fullerton, Upjohn Company, seventh flight low gross; Robinson Ord, Monsanto Chemical Co., seventh flight low net; F. D. Smith, Monsanto Chemical Co., second low net; Mrs. S. V. Smith, eighth flight low gross; Mrs. Lloyd I. Volckening, eighth flight low net; Mrs. George F. Smith, second low net, George R. Hazel, Abbott Laboratories, longest drive; H. J. Loynd Parke, Davis & Co., closest to pin; L. S. Roehm, the Dow Chemical Co., least putts; Lee Klemmer, Modern Medicine, guest low gross; James Law, guest low net; W. W. Huisking, Chas. I. Huisking & Co., guest second low net; Harold Cummings. Vitamerican Oil Corporation, guest third low net.

The Golf Committee was under the chairmanship of Joseph A. Huisking of Fritzsche Brothers, who was assisted by J. Mason Gaston, Merck & Co.; William D. Barry, Mallinckrodt Chemical Works; and Victor E. Williams Monsanto Chemical Co.

Ogilvie-Lee Pharm. Formed

The formation of Ogilvie Sisters-Lee Inc., to produce a new home permanent and hair conditioner kit was announced by Clara Ogilvie, head of Ogilvie Sis-

CLARA OGILVIE

RAYMOND LEE

ters. The product will be marketed by Lee Pharmacal Company, of which John A. Roosevelt is president and Raymond Lee, chairman of the board. Miss Ogilvie also announced the appointment of Lee Pharmacal as exclusive retail sales agents for all Ogilvie Sisters products, except for the Canadian and salon trades. Ogilvie Sisters will continue to manufacture their specialized hair and scalp preparations with Lee Pharmacal as exclusive sales representative.

Appointed by Parke, Davis

Blaine R. Lehman has been appointed manager of the Bay division of Parke, Davis & Co., filling the vacancy recently created by the death of John S. Britton, according to Homer C. Fritsch, vice-president and general manager of the company.

Become Stein Hall Directors

Stein, Hall & Co. elected William W. Strasser, Jr. and Leslie A. Jacobson to its board of directors at the recent annual meeting of stockholders. All other directors of the company were reelected.

Cushman V.P. of Sales

Donald S. Cushman was appointed vice-president in charge of sales for Innis, Speiden & Co. by the board of directors on April first. Mr. Cushman,

DONALD S. CUSHMAN

formerly Cleveland manager of sales for the company, has been with Innis, Speiden since 1928. He was transferred to New York as assistant sales manager in 1942 and appointed assistant to the president in August of last year.

Colgate Appointments

Leo A. Scott has been appointed general superintendent of domestic plants and Joseph G. Ferraro has been named Jersey City Plant Superintendent, according to Hugh R. MacMillan, Jr., vice-president in charge of production at the Colgate-Palmolive-Peet Company.

Bodecker Directors Re-elected

The stock holders of the Bodeker Drug Company at its annual meeting re-elected the directors of the company for another year, according to William T. Allen, president. Mr. Allen was named to succeed himself as president and treasurer; Henry F. Miller, Jr. was named vice-president; Charles H. Miller, secretary; Milton M. Hobson, assistant secretary; and E. E. Ford, assistant treasurer.

The stock holders re-elected E. M. Miller as chairman of the board, and the following directors: Edwin D. Horner and Walter G. Mason, president and vice-president of Scott, Horner and Mason, respectively; Lewis F. Powell, president of the Richmond Chamber of Commerce; E. Harvey Wilkinson, vice-president of the State Planters Bank and Trust Company; William T. Allen and Henry F. Miller, Jr.

Robin Pharmacal Expands

Robin Pharmacal Company has taken over an additional floor at 480 Broome Street, New York and enlarged their facilities for the manufacture of coated and compressed tablets.

Carsch Appointed by P & S

Gustav Carsch has been appointed manager of the Chicago branch of Polak & Schwarz. He had formerly been a sales representative in the mid-west territory for several years for the firm.

Sonneborn Absorbs Subsidiary

Rudolf G. Sonneborn, secretary-treasurer of L. Sonneborn Sons, Inc., has announced that American Oil and Disinfectant Corp., wholly-owned sub-

RUDOLF G. SONNEBORN

sidiary of Sonneborn, will in the future be known as the Whistlclean division of the parent company. Joseph A. Lichterman, formerly general manager of the subsidiary, will remain in full charge of the new division.

Commercial Solvents Appoints

Carl S. Miner, director of Miner Laboratories, has been elected to the board of directors of Commercial Solvents Corporation, according to Major Theodore P. Walker, chairman of the board. William C. Patrick, John S. Kosewicz, and Robert S. Baldwin have been added to the staff of the company's research and development department in Terre Haute, Indiana.

Members of the DSC and its associates attending the annual dinner given by Magnus, Mabee & Reynard, Inc., at the Hotel Statler last month. Guest of honor was Wheeler McMillen, editor of Farm Journal, who talked on the potentialities of the science of chemurgy.

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DPi now makes available to the drug and cosmetic industry the most powerfully dispersing monoglycerides ever offered in commercial quantities. With minimum monoester content of 90%, 2 to 3 times the purity of ordinary monoglycerides, Myverol Distilled Monoglycerides offer exciting new possibilities in the compounding of new cosmetic emulsions.

The greater effectiveness of this material as a surface-active agent can also lead to profitable improvements in appearance, texture, stability, and longer-lived freshness of many products.

Myverol Distilled Monoglycerides are uniformly odor-free, catalyst-free, and soap-free—a uniquely pure material that will be incorporated into many fine products that the coming years will reveal.

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Thomas J. Winn, sales manager of the antibiotic division of Chas. Pfizer & Co., Inc., showing John L. Davenport, executive vice-president (standing) and Fred J. Stock, vice-president in charge of sales, some of the telegram orders received from service wholesalers following Pfizer's announcement of plans to distribute terramycin through wholesale channels.

Pfizer Antibiotic Div. Staff

Thomas J. Winn was appointed sales manager of the newly formed Pfizer antibiotic division, following the introduction of terramycin, according to Fred J. Stock, vice-president in charge of sales of Chas. Pfizer & Co., Inc. Lawrence J. Barrett was named western regional manager with offices in Chicago and Edward W. Whitney, who has been in charge of Pfizer advertising, was named advertising manager of the new antibiotic division.

Givaudan Ends U. S. Visit

Following a three-week business trip to the United States, Andre Givaudan left New York for Geneva on April 2nd. Mr. Givaudan, in conjunction with the directors of the Givaudan Corporation in this country, formulated plans for the expansion of the research and production facilities, including laboratories and personnel, at Delawanna, and the launching of an enlarged research program which will complement that in effect in the parent company in Geneva.

Directors of Allied Labs.

Hibbard O. Ball, secretary, and M. C. Bartlett, vice-president in charge of export, both of the Pitman-Moore Company division, Indianapolis, and H. C. Deakin, West Coast Manager of the Company's Sacramento, California, division, were elected to the board of directors of Allied Laboratories at a recent stockholders' meeting, according to Dr. E. A. Cahill, president and chairman of the board.

Flavoring Extract Convention

The forty-first annual convention of the Flavoring Extract Manufacturer's Association will be held at the Traymore Hotel, Atlantic City, from May 7 to 10. Dr. J. W. Sale, chief of the beverage division of the Food and Drug Administration is scheduled to talk on recent administrative opinions and court decisions under the Federal Food, Drug, and Cosmetic Act of interest to Flavoring Extract Manufacturers. Other speakers will include Hamilton Eams, educational director of the American Economic Foundation; Ray C. Schlotterer, secretary of the Vanilla Bean Association; Professor P. H. Tracy of the Dairy Husbandry Department of the University of Illinois; Paul S. Willis, president of the Grocery Manufacturers of America; Ernie Briggs, Jr., the Dow Chemical Company; A. K. Barta of the Proprietary Association; A. R. Ludlow, Jr., manager of alcohol and chemical sales, U. S. Industrial Chemicals, Inc.; H. P. Wesemann, president of the Essential Oils Association of America; J. J. Thompson, Chas. Pfizer & Co., Inc.; and Admiral Fred Bell, director of human relations, McCormick and Co.

Edwards Named Supervisor

John P. Edwards was named supervisor of product application by the Hooker Electrochemical Company. He will coordinate activities of research and sales in respect to the development of uses for new products and new applications of old products for the chemical and allied industries.

25 Yrs. With Polak's Frutal Works

Eugene Friedman completed twenty-five years as midwestern representative of Polak's Frutal Works, Inc. this month, having taken over the representation in April, 1925. He has also managed the Chicago branch office of the company since that time.

Mr. Friedman graduated as pharmacist and pharmaceutical chemist in 1904 from the University of Breslau and University in Berlin. He obtained his Ph.D. degree in 1908, specializing in pharmaceutical, dyestuff, photographic

EUGENE FRIEDMAN

and explosive chemistry under Professor Adolph Von Bayer in Muenchen, Germany, during which time he established the constitutional formula of adrenalin wrote a thesis on the subject of gamma amino acids. Mr. Friedman came to the United States in 1913 and immediately began working for the Rockefeller Institute for Medical Research, later becoming chief chemist (1915) of McLaughlin, Gormley, King Company in Minneapolis, and still later, a partner in the McLaughlin Chemical Works, manufacturing phenacetin, photographic developers and azo dyes. He simultaneously took a postgraduate course in organic chemistry at the University of Minnesota, where he became the official tutor in that subject.

After the first world war, Mr. Friedman was connected for a short time with Heine and Company and the Rhodia Chemical Co. as sales representative in the Middlewest, until he became affiliated with Polak's Frutal Works in that territory. Mr. Friedman states that he is continuing to lecture at various universities on essential oils, flavors, and allied subjects.

Allen Chairman of NWDA Ass'n

W. T. Allen, Bodeker Drug Company, Richmond, Va., has been appointed chairman of the committee on trade promotion of the National Wholesale Druggists Association.

Members of Abbott's research, development and control departments who were presented special certificates of merit by Dr. E. H. Volwiler, executive vice-president. Left to right: Dr. Howard H. Fricke, Elmer Krueger, Dr. Volwiler, Dr. J. F. Biehn, Dr. John C. Sylvester, and Dr. Douglas V. Frost.

Abbott Awards Certificates

Dr. Douglas V. Frost, head of the nutrition department, Abbott Laboratories; Dr. Howard H. Fricke, senior chemist in the nutrition department; Elmer Krueger, assistant manager of the control laboratories; and Dr. John C. Sylvester, head of the fermentation department were each awarded special certificates of merit by Abbott last month at the fifth annual dinner of the research, development and control departments.

Dr. J. F. Biehn, medical director, received a special citation for his forty years of service. Presentations were made by Dr. E. H. Volwiler, executive vice-president; Edgar B. Carter, executive director of research; and Dr. Robert D. Coghill, director of research.

Abbott Ships Radioactive Gold

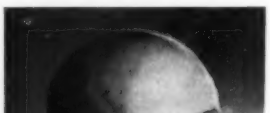
Abbott Laboratories sent an air shipment of radioactive colloidal gold to Dr. Mario Gaitan-Yanguas of Cali, Columbia, last month for the experimental treatment of an ovarian tumor. The gold was irradiated in the Oak Ridge atomic pile and rushed by air to Abbott for processing into a form that could be used in human beings. The radioactive colloidal gold dissipates so rapidly that at the end of three days only one-half the original activity remains. The processed drug may be injected directly into the tumor where it acts like radium and kills the tumor cells, frequently without undue damage to the adjacent normal tissue. This was the first commercial shipment of radioactive material to South America by a pharmaceutical house in the U.S.A.

Lightfoot With Brockway Glass

The Brockway Glass Co. announces that C. Lee Lightfoot has become associated with the company as a Packaging Consultant.

Rattiner Named Sales Mgr.

Alan Rattiner was appointed sales manager of the drug division of Associ-



ALAN RATTINER

ated Brands, Inc., according to H. Bruce Hagler, president.

Chem. Ass'n Officers

Edwin C. Kenton, Evans Research & Development Corporation, was recently elected president of the New York Chapter of the Armed Forces Chemical Association. In addition, Colonel Leslie Sutherland, Barrett division, Allied Chemical & Dye Corporation, was named vice-president, and Walter Spicer, Lambert Pharmacal Company, secretary.

Brand Names Foundation Bd.

George S. McMillan, vice-president Bristol-Myers Co.; Roy W. Peet, manager of the Association of American Soap & Glycerine Producers, Inc.; and William G. Warner, manager, division of public relations of the Procter & Gamble Co. were named to serve on the board of directors of Brand Names Foundation at the fifth annual Brand Names day at the Waldorf-Astoria early this month. James Hill, Jr., president of Sterling Drug Inc., will continue to serve as director.

Elected to Pfizer Board

Herman A. Poitras, vice-president in charge of production of Chas. Pfizer & Co., and Charles P. Walker Jr., general sales manager of Pfizer, were elected to the board of directors of the company at the annual meeting held April 3. Those who were reelected are George A. Anderson, John L. Davenport, Jasper H. Kane, John E. McKeen, John J. Powers, Jr., Robert P. Serles, Maynard E. Simond, John L. Smith, Fred J. Stock, Louis M. Timblin. The number of shares of the company was increased from 1,500,000 to 2,000,000.

Carl M. Black

Carl M. Black, who had been midwestern representative of S. B. Penick & Co. for twenty-five years prior to his retirement, died last month. Before joining the Penick organization, Mr. Black had been connected with the Murray & Nickells Manufacturing Company, Chicago, a company which Penick purchased in 1937.

Walter S. Goff

Walter S. Goff, member of the staff of the Chicago office of Chas. L. Huisking & Co., died recently in Chicago. Mr. Goff, who was widely acquainted in the drug and pharmaceutical trade, had never fully recovered from a stroke suffered three years ago.

Henry E. Perry

Henry E. Perry, president of the Commercial Solvents Corporation, last month fell from his fourteenth floor office at 17 East 42nd Street and died instantly. He joined the corporation in 1922 and became vice-president and director in 1938, executive vice-president and director in 1946, and president in 1947. In addition to his positions with Commercial Solvents, Mr. Perry was president and director of the Thermatomic Carbon Company; chairman of the board and director of Commercial Molasses Corporation; a director of the Toledo, Peoria and Western Railroad; a director of the Pacific Molasses Company, and a director of the Carrier Corporation. He is survived by his widow Evelyn Hollister Perry and five children.

Charles Collins Teague

Charles Collins Teague, president of the California Fruit Growers Exchange, died last month of a heart ailment at the age of seventy-seven. He had also been the first president of the California Walnut Growers Association, serving from 1912 to 1942, and was elected president of the Fruit Growers Exchange in 1912.

INDUSTRY'S BOOKS

The Clove Tree, by G. E. Tidbury, B.Sc., A.R.C.S., A.I.C.T.A., Agricultural Officer, Zanzibar Protectorate, 212 pp., Crosby Lockwood & Son, Ltd., London, Illus., 18s.

In spite of the great antiquity of the clove trade, for cloves have been valuable articles of commerce for many centuries, the story of the tree and its products has never been adequately told. Although a small number of agricultural textbooks have included single chapters devoted to the spice and a few articles have appeared in technical journals describing individual aspects or problems connected with clove culture, yet these sources of information are scattered and, in many cases, difficult of access. Furthermore, the most important aspect of all, namely, the comparatively recent additions to our knowledge of the agronomy of the crop, has not been fully described. This book has, therefore been written in order to provide a picture of the clove trade for those who have never visited the spice islands of Africa as well as in the hope that it may assist those who are actually growing and handling the spice.

Federal Food, Drug, and Cosmetic Act, Judicial and Administrative Record (1938-1949), by Vincent A. Kleinfeld, and Charles Wesley Dunn, 895 pp., Commerce Clearing House, Inc., New York, $17.50.

The provisions of the Federal Food, Drug, and Cosmetic Act, as construed by the courts and administered by the Food and Drug Administration, have a most important bearing on the tremendous food, drug, and cosmetic industries of the nation. The increasing importance of the field impelled the authors to prepare a work which is neither a text nor a mere compilation. The design of this work was to furnish a useful guide and source book not only for the attorney, both expert and non-expert, in the field, but also for the administrative official who would like to have on his desk something for ready reference. Essentially, the book is divided into three parts. One part contains every opinion rendered under the Federal Food, Drug, and Cosmetic Act which appears in the jurisdictional law reporters, and, in addition, various so-called "unpublished" decisions, which cannot be found except perhaps in notices of judgment published by the Food and Drug Administration and in the CCH Food Drug Cosmetic Law Reports. The second part of the book contains all of the "Trade Correspondence" and "Statements of General Policy or Interpretation" issued by the Food and Drug Administration. The Third part of the book represents an attempt to furnish exhaustive references to the pertinent material when any problem arises under any section of the Act. The book contains an exhaustive and comprehensive index for ready reference by both lawyers and laymen.

Diabetic Care In Pictures—Simplified Statements with Illustrations Prepared for the Use of the Patient, by Helen Rosenthal, B.S., Associate Dietitian in the Food Clinic, The Boston Dispensary; Frances Stern, M.A., (Honorary), Chief of the Food Clinic, The Boston Dispensary; and Joseph Rosenthal, M.D., Chief of Diabetic Clinic, The Boston Dispensary, 150 pp., J. B. Lippincott Co., Phila., $2.50.

This book has been written and illustrated to serve as part of the diabetic's equipment so that diabetes and its treatment may be understood and fullest co-operation given by the patient to the physician and the dietitian. This book has been written in simple terms and illustrated by charts, photographs and drawings of food (picture sheets). The book tells about diabetes, its treatment—the diet, the kinds and the measurement of insulin and the technic of its injection—insulin reactions, acidosis and diabetic coma, the blood and the urine tests that check the diabetic's condition, and the care necessary for the body, especially the feet.

Polishes, Their Raw Materials & Manufacture, by Dr. J. Davidsohn, Consulting Chemist, and A. Davidsohn, Member of The Society of Public Analysts and other Analytical Chemists, Second Ed., 175 pp., Leonard Hill Ltd., London, 15s.

The authors have collected in this completely revised edition descriptions of new raw materials and methods so that this edition is greatly enlarged and modernized. The second edition of this work comprises not only shoe and floor polishes, but other important kinds of polishes as well. As in the first edition, the chapters on waxes and solvents are designed to make the reader thoroughly acquainted with the raw materials he has to work with. The aim of this book is to give the necessary knowledge, particularly to the practical man, which will qualify him to avoid, or to overcome easily, difficulties in the selection of raw materials or in the course of manufacture. Its object is not to give a collection of formulas and specifications, but to place a small handbook at the disposal of the practical man which will be a theoretical and practical guide for him in his work.

Chemistry of Heterocyclic Compounds—The Heterocyclic Derivatives of Phosphorus, Arsenic, Antimony, Bismuth, and Silicon, by Frederick George Mann, Cambridge University, 180 pp., Interscience Publishers, Inc., New York, Special price for Subscribers to series: $4.20; for non-subscribers $5.25.

This is the first volume to appear of a series of monographs devoted to a modern detailed and comprehensive presentation of heterocyclic chemistry by a group of authorities. The chemistry of heterocyclic compounds is one of the most complex branches of organic chemistry. It is equally interesting for its theoretical implications, for the diversity of its synthetic procedures, and for the physiological and industrial significance of heterocyclic compounds. A field of such importance and intrinsic difficulty should be made as readily accessible as possible, and the lack of a modern detailed and comprehensive presentation of heterocyclic chemistry is therefore keenly felt. It is the intention of the present series to fill this gap by expert presentations of the various branches of heterocyclic chemistry. The subdivisions have been designed to cover the field in its entirety by monographs which reflect the importance and the interrelations of the various compounds, and accommodate the specific interests of the authors.

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Four new units for the efficient and economical production of tablets.

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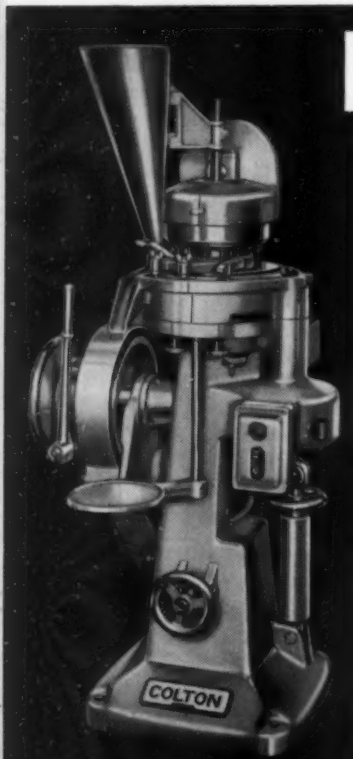

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For pans up to 30″, new Colton No. 6; over 30″, new Colton No. 6A Coating Stand. Driven direct from motor through gear reducer; no belts; no slippage under load. Shafts mounted on anti-friction bearings; gears completely enclosed, running in oil. Motors ¾ HP and 1 HP polyphase.

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MANAGEMENT FORUM

By Francis Chilson
Industrial Consultant

Selecting Executives

I sometimes wonder if, in selecting men for responsible jobs, we are not a little too over-anxious about their ability to make good. Before we promote a man to a key job, we analyze the bumps on his head and sometimes have him play with blocks and solve puzzles in order to test his attitude and aptitude. Some firms send their prospective executives outside to be psychoanalyzed by professionals. No one knows better than I how easy it is to be wrong in selecting key men. I have seen some men, who looked like born executives, fail so utterly that actually I have recommended to clients that they allow professionals to screen their executive talent.

But I wonder if the best way to develop men isn't simply to show that you have confidence in them by appointing them to key posts and then loading them down with responsibility? After that, don't be too anxious to find out how they are getting along. Don't wet nurse them. Let them find themselves. Many people will disagree with this method too but during the war it worked.

Eisenhower's book is not so much a story of the war as it is a story of an organization job on a stupendous scale. Consider the international politics he had to deal with. Consider the prima donnas like Patton and Montgomery he had to handle. Remember how he stuck loyally to Patton when everybody from hell to breakfast was yelling for Patton's head? In industry, when a man is too impulsive on occasion in trivial matters as Patton was, or when he talks too much also about trivial matters as we all do, we forget all about the genius and abilities of such a man and fire him because "he can't keep his mouth shut." In the end Patton substantiated Eisenhower's judgement. Consider Eisenhower's problem in handling Churchill, who like many geniuses, regards himself as omniscient in fields other than those in which his multifaceted genius shines so brilliantly. He felt he was a great military commander and he tried persistently and insistently to run the show. Eisenhower's job in handling him was like yours would be if the chairman of the board of directors insisted upon interfering in the operations of the packaging department. (I know one who does just that).

My own war experiences and observations lend support to the belief that the best way to create executive talent is on a "sink-or-swim" basis.

I well remember the time Chattanooga Medicine Co. decided to utilize a building vacated by the modernization program than going forward for the production of K Rations. Because specifications were being constantly changed and the quartermaster corps was still in a highly chaotic state, I opposed the management's purpose in no uncertain terms. But when president Lup Patten makes up his mind on a project everybody around had better start moving. And we did. And how we did!

To give you an idea of the magnitude of the project let me say that before the war the factory organization had to deal with half a dozen carloads of material a year because most of the company's materials were handled in and out by truck. When the K Ration deal got under way the organization was dealing with an average of eight to ten carloads every day besides a proportionately increased trucking load. The factory went on a 24 hour basis; personnel increased from about 200 to 2500. We had to adapt, make or invent equipment; we had to equip the building; we had to devise ways of handling a vastly increased flow of materials; we had to dispose of a vast tonnage daily of waste packing materials with which incoming supplies were packed.

The record will forever stand as a monument to the Chattanooga staff:

It was the first company to make delivery on schedule. It was the first company to produce a package which

in ION-EXCHANGE it's RESULTS that count!

Check... THESE CASE HISTORIES OF DORRCO d-i INSTALLATIONS . . .

FOR ANODIZING BATHS

Double installation provides two successive stages – units in operation four years with no resin replacements.

Results: Saving of over 90% on process water costs . . . improved control in anodizing operation. Average overall operating expense (including labor) – 32.1 cents per thousand gallons of de-ionized water produced!

FOR CARBONATED BEVERAGES

A Dorrco D-I Unit, four years old, still operates exactly as specified when sold . . . and with original resins.

Results: Taste and "shelf-life" of finished product improved . . . pin-point carbonation attained. Overall operating cost – two-tenths of a cent per case of twelve 28-oz. bottles!

FOR COSMETIC MANUFACTURE

Dorrco D-I Unit installed over 3 years ago . . . no resin replacements required.

Results: D-I water cut costs when substituted for distilled water . . . process variable eliminated when substituted for raw water. Total operating expense – 13 cents per thousand gallons of de-ionized water produced!

FOR PHARMACEUTICAL MANUFACTURE

D-I water meets strict operating requirements over a four year period . . . with no resin replacements.

Results: Product quality improved . . . variable of fluctuating quality in water supply eliminated. Average overall operating expense – 42 cents per thousand gallons of de-ionized water produced!

We believe these results speak for themselves. Regardless of industry, if your process requires water of controlled mineral content, a Dorrco D-I System will produce it . . . in any amount . . . at a fraction of the cost of distillation. Write for Bulletin #4081 for complete details.

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did not leak. The result was that by the end of the war all other K Ration contracts had been cancelled and Chattanooga was producing all.

The highest compliment any organization could have had came from the quartermaster general who, in visiting the plant, said it "looked like a ball room."

Let's look now at the organization and training program for it isn't often in history that a company's volume and personnel is multiplied ten times in the course of a few months.

At the beginning of the program the factory staff consisted of Sam Nobel, plant manager, whose idea it was to get into K Ration, and who not only acted as factory boss, but went out and sold the first order and thereafter acted as liaison between Chattanooga and the quartermaster depot at Chicago. Sam had as general assistant and right hand man Enoch Jennings. Joe Persinger handled purchases. Ward Hastings engineering. Jim Grainger quality control. With a few foremen that was the entire factory staff.

At the end of the war that group was still almost the entire factory staff, for it had been augmented only by two assistants and during the last part of the war a personnel manager.

That small group under the inspiring leadership of President Lupton Patten had to get the business, buy the materials, make machines, hire the people, train them and get the stuff out on schedule. At the same time they had to handle Chattanooga's regular business, the volume of which with government contracts, had tripled.

How did they do it? They didn't do it by reading anybody's bumps. There wasn't time. At this point we had discontinued a large print shop, so the foreman became superintendent of the K Ration operation, pressmen linotypers, trimmers, stitchers and calender tinners suddenly became supervisors of one kind or another. None of them save the foreman had ever directed people before. None of them failed except the foreman who felt that his vastly increased responsibilities entitled him to come to work full of moonshine "likker". He got away with it for a time until Sam Noble smelled his breath. Then there was an explosion and that was the end of the foreman. Southern people are apt to be very prejudiced against liquor when it is in somebody else.

In all my experience I never saw man develop with developing responsibilities as they all did in Chattanooga. Sudden responsibilities suddenly made men managers. Such a magnificent performance could not have happened in peace time. Under normal conditions management is more concerned with the possibility of a man's failure than it is with loading him down with more responsibilities. I have observed that the men who are loaded with too much responsibility generally do not fail; they haven't time for doubt; they have to move too fast to become bewildered and they haven't time for petty politics.

It would be inappropriate to close this piece without paying a tribute to my good friend, Ken Doble, president of Pneumatic Scale Corporation, because he played an important role in Chattanooga's initial success. At the time the company took the first K Ration contract, we needed bottom sealers for the glued packages. We had, in the modernization program, discarded three Pneumatic Scale bottom sealers which had been used for Black Draught packages, not because the machines were worn out, although they had been in use for thirty-five years, but simply because they were too slow. I called Ken Doble on the phone and told him we proposed to rebuild these old machines to handle the much larger K Ration packages even if we had to make all the parts out of wood. I reminded Ken that in all the years of our business dealings I had never asked a favor of any kind and this was it: war or no war I wanted the best mechanic in the shop sent by plane to Chattanooga the next day to help our man Ward Hastings rebuild those machines. Ken didn't protest though I knew what a tremendous sacrifice he was making. His best mechanic came. The machines were soon rebuilt and for a couple of years more worked twenty-four hours a day with make-shift parts, until we discovered a faster way to seal the packages. Those machines are a tribute to Pneumatic Scale.

Swindle Sheets

Every company allows its salesmen and executives to submit expense accounts, those pieces of creative literature, known expressively as "swindle sheets." If traveling men generally put as much creative thought into their work as they do into composing the swindle sheet, so that it will look plausible to an eagle eyed treasurer, their efficiency would increase tremendously. Some swindle sheets show evidence of positive genius. I know. I had eight engineers on my staff during the war years.

I shall long remember an experience during the early thirties when I attended a convention in New York with my good friend Howard Sumner, then plant manager of Norwich and now president of Eaton Laboratories. Came the end of the convention and we were both broke. Together we created a masterpiece of literature which we hoped would pass the cold and fishy eye of Jack Hill, the company treasurer. I don't know whether Jack is Scotch or not. I don't know what the hell he is but he can sniff a swindle sheet and instantly identify the perfume worn by the company "customer" whom you entertained so royally. When he takes two sniffs he can tell whether or not the price of the whole damn bottle is buried in the figures. (More than likely it is.)

Having decided that any more inflation of the swindle sheet would cause it to swell at the seams until the stitches showed, we had an inspiration. Hunger vanished. We would lunch royally at the expense of Mr. Turner Currens, eastern salesmanager of the company, whose office was hard by that famous hostelry, the old Lafayette Hotel.

We called upon Mr. Currens about noon. We asked him if the factory was providing the right kind of serv-

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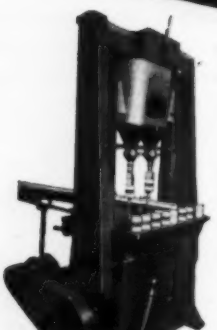

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ice. We inquired solicitously about the state of his health. Turner was pleased. He was delighted in fact. He'd take us to the Lafayette for lunch, b'God! for it wasn't often that factory people take such intelligent interest in the problems of the sales department. As he went to get his hat, Sumner said to me *sotto voce*, "Like taking candy from a baby! We'll dine like gentlemen at Turner's expense. You see, Frank, all you've got to know is how to handle people."

We went to the Lafayette. Turner ordered cocktails copiously. He ordered vast quantities of expensive hors d'oeuvres. We had oysters Napoleon and royal squab. With it all we had the appropriate imported wines and then coffee and imported brandy—much brandy. Nothing but the best for a couple of guys like us, Turner said. We felt content as we sipped our brandy. It paid to be nice to the sales department.

The bill came. It was about sixty odd dollars. We didn't worry. We didn't have to pay. Then Turner suggested, "Let's play 'odd man out' for twice the amount of the check." I had a premonition of disaster. I had gambled with Turner before. I felt like Charlie Chaplin did the time he ordered another plate of beans after finding a silver dollar, and then, as the beans were served, discovering accidentally that the "silver dollar" was lead. We looked at Turner as Charlie looked at the huge, thug-like waiter who was serving him.

No, we wouldn't think of gambling with him. It would be a violation of the laws of hospitality. We couldn't subject him to the risk of losing, not only the price of the check but twice as much. No, we couldn't do it. After all it was two against one. Turner looked at us quizzically. He'd take the risk. He didn't mind gambling with such good friends. In fact he'd be delighted to lose to us. It would give him great pleasure. Surely after he had treated us to such a magnificent lunch we couldn't deny him the pleasure of just one little gambling game before he went back to the office.

Sumner looked at me helplessly. I nodded. There was one chance in eight million we might win. We matched. We lost. Turner got up. "Good day, gentlemen. I'm sorry you lost. It was delightful to be with you." Then suddenly we had to tell him we were broke. We *couldn't* pick up the table.

"So that's it!" Turner said. "I knew you two high-binders were up to something when you were so concerned about my health. You hoped I'd live just long enough to pay the check. Good day, gentlemen! Pleasant dreams!" And he waddled off.

There were times when I thought Turner Curren's humor was a trifle coarse and this was one of them. But he also could observe the niceties of the best social usage because, at the door, he bowed to us and tipped his hat.

Sumner looked at me glumly and I looked back at him glummer over the national debt that lay between us on the table. At that time neither of us had accounts in New York or even credit cards.

I said, "The manager of this place looks to me like a ravenous vulture. I wonder if I could talk him into accepting my check."

"I doubt it," Sumner said. "He's a Frenchman. He's probably tighter than Jack Hill. We're in a spot. Are you familiar with the creature comforts of the New York jails?"

"No," I said. "And I don't want to be. I understand they are cold, dark, dirty, damp and in need of modernization. But I don't want the job. I'd rather spend the rest of the week washing dishes."

"In that case," Sumners said philosophically, "Let's order some more of that Courvoiser brandy Turner urged us to drink so copiously. I understand that brandy cuts the grease. Might as well run the bill a little higher. Garcon!"

We sipped the brandy. We warmed it between our palms. We sniffed it. We were like Charlie Chaplin eating that last plate of beans one at a time. One by one the leisurely patrons left. The porters started cleaning up. The manager hovered about. The waiter looked at us dourly because we were interfering with his siesta. And when he looked dour enough we ordered more brandy. When you're confronted with certain disaster there's no point in being in a hurry. But the brandy did not provide us with an inspiration on how to get out of our dilemma. As we were about to confess all, Mr. Currens came back. We could have kissed him. Never was anyone so welcome, said he: "Well! Well! Still guzzling, eh? I came back to see how you were getting along with the dishes."

We begged him abjectly to save us that humiliation. We'd had enough of dish washing when we were kids. We were allergic to suds except in beer. Turner very graciously paid after making each of us give him a check for the full amount of the bill. And he threatened horrible reprisals if either of us stopped payment on our check.

The moral of this story is, when you can't swindle the treasurer any more it isn't safe to try putting one over on the salesmanager. Those fellows get around too much.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

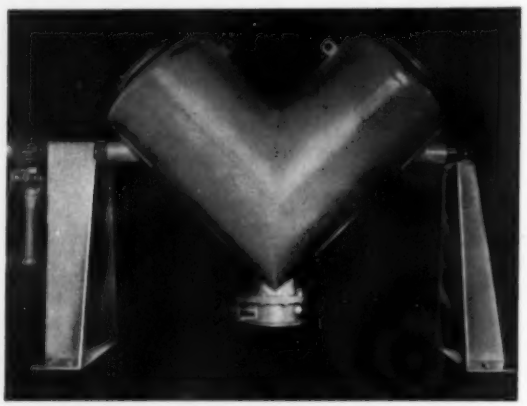
Patterson Twin Shell Blender

The Patterson-Kelley Company, Inc., 23 Burson Street, East Stroudsburg, Penna., announces the development of the Patterson Twin Shell Blender, a unique mixing apparatus for blending dry materials unlike any other blender on the market.

Essentially it consists of two cylindrical shells of equal diameter but so joined together as to form a V rather than a long straight tube. This V-shaped unit rotates about a horizontal axis passing through approximately the geometrical center. At the apex or point of the V is located a dust-tight discharge valve;

at the end of the two legs are located standard access covers with swing bolts and dust-tight gaskets. If necessary to prevent dust while loading, the machine can be set in the reverse position (A) and fed through the discharge valve.

In operation, the unit is set in normal upright position and charged through either or both access openings until about half full (this point varies with different products). With valve and access openings closed, the machine is rotated slowly about the horizontal axis. In a few minutes, the time varying according to different products, a perfect blend is obtained. After setting the machine at normal vertical position (V), the mixed



product is discharged through the discharge valve. If the unit requires cleaning out after each blend, it can be easily done through the access opening. There are no baffles or other obstructions to retard cleaning or to cause products to "hang up" and prevent thorough mixing while in operation.

Sizes of the Patterson Twin Shell Blender range from 1 to 250 cubic feet capacity. Power requirement (based on materials of 50 lbs. per cubic foot density) range from ¼ to 20 hp. Other drives available for heavier products. Standard motors supplied are integral gearhead type with built-in magnetic brake for close control in "spotting" the unit for charging and discharging.

The company has available at nominal cost, small test blenders built of strong, transparent plastic so that those in charge can watch how the blending takes place and check its effectiveness.

The company maintains a test laboratory where those with blending problems can send samples for time and effectiveness tests. It is suggested that not less than 8 quarts be sent. For those who would like literature, Catalog Section 401 will be sent on request.

Ampoule & Vial

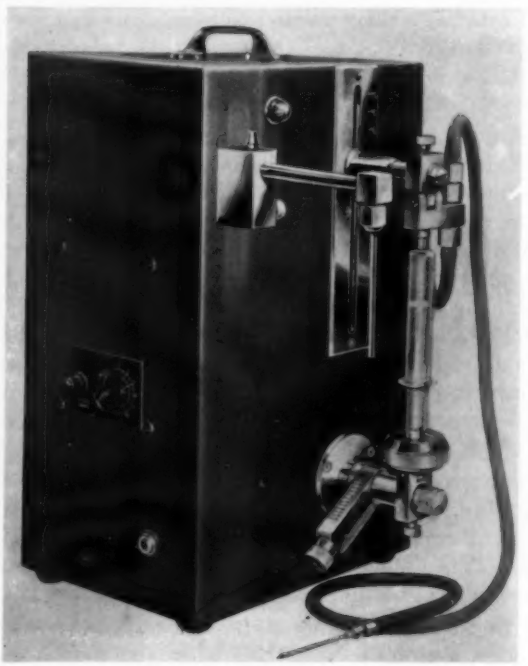
The Filamatic is a new, low cost, portable filling machine. It is designed to deliver accurately measured quantities of liquids into vials or ampules on a production basis. Too, the Filamatic Model A provides a greatly increased range of deliveries with greater accuracy. Easy to operate, the Filamatic is virtually maintenance free and has the following features.

1. *Electronic Speed control.* A thyratron-type control gives stepless, variable speed at full torque. Quiet in operation. No mechanical components to wear and get out of order. Filling speeds from 500 to 5000 deliveries per hour.

2. *Micrometer adjustment.* Makes accurate deliveries from .025 cc. to 50 cc. Piston displacement is adjustable to 2 thousandths of an inch. Accuracy, at any setting, is better than plus or minus ½ per cent. Change in delivery volume is easily made by simply loosening a knurled thumbnut, adjusting micrometer, and retightening thumbnut with finger pressure.

3. *Aseptic filling.* Entire filling mechanism, including valve, syringe and tubing, may be easily and quickly disassembled as a unit, for cleaning and sterilizing. The loosening of two thumbscrews is all that is required for dissassembly. For continuous operation, spare unit is available.

4. *Uses standard syringe.* The Luer-Lok syringe with chrome-plated brass tip, universally available, is used for most liquids. Where the solution reacts with chrome-plated brass, a special stainless steel tipped syringe is available.



5. *Various size syringes.* Adapter rings available for 1, 3, 5, 10, 20 and 30 cc. syringes. Fifty cc. syringe does not require adapter ring.

6. *Quick, safe assembly of syringe.* Joint at valve assembly swivels a full 90° to facilitate insertion and removal of syringe. Swivel joints at valve assembly and eccentric connector relieve glass syringe of strain.

7. *Syringe breakage eliminated.* Correct post setting for each size syringe is clearly indicated. This eliminates syringe breakage due to incorrect adjustment.

8. *Full capacity deliveries.* Up to the full capacity of the syringe may be delivered, i.e. a 50 cc. syringe will deliver up to 50 cc. of solution.

9. *Type of solutions delivered.* Any type solution from aqueous to light oils delivered at accuracy of better than plus or minus ½ per cent at any setting.

10. *Ever-Dri delivery tip.* Unique delivery method prevents a hanging drop at the Ever-Dri delivery tip.

11. *Kinds of filling.* The Filamatic is designed for tray filling (see illustration) or fixed position filling. Changeover for fixed position filling is easily made. Simply place stationary filling head in position (per illustration), tighten knurled thumbscrew, and attach tubing from outlet valve to stationary head.

12. *Volumetric adjustment.* Rapid, foolproof and accurate—plus or minus ½ per cent at any setting. Loosen eccentric thumbnut, adjust vernier, tighten thumbnut. No tools, no wrenches; finger pressure only is required. Once set, volumetric adjustment is automatically in place—cannot get out of adjustment during operation.

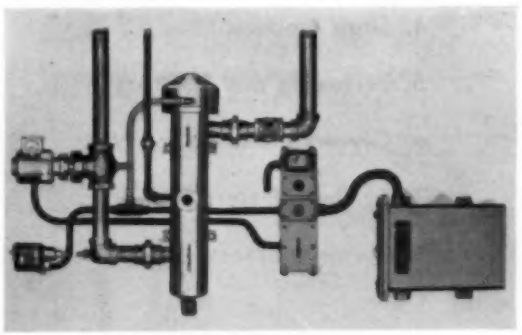
13. *Portable.* The Filamatic occupies only 8 x 10 inches of bench space. Weighs only 20 pounds.

Filamatic is fitted with outlet socket for foot switch. All metal parts that contact the liquid are made of stainless steel. All rotating and moving parts, including the valve pivot, fitted with Oilite self-lubricating bearings.

Steritron

Hanovia Chemical & Mfg. Co. of Newark, N. J. announce the development of a new water sterilizer, the Hanovia Steritron.

Constant purity of water is obtained without the addition of chemicals, taste and physical structure remains unchanged.



Completely automatic the Steritron offers an efficient method of continuous rapid flow sterilization at a low operating cost.

Units can be furnished for 110, 220 and 440 Volts, 50, 60 or 25 cycles.

For further information, write for Steritron technical bulletin. Hanovia Chemical & Mfg. Co., 100 Chestnut Street, Newark 5, New Jersey.

Portable Ion-Exchange Unit

Water which is virtually free from ionized impurities can now be produced quickly and at low cost by the new mixed-bed technique of ion exchange operated in a miniature exchange unit which weighs but 5½ pounds and requires only one-third of a square foot of bench space. To the worker in operating, research or school and university laboratories, the new apparatus appears to offer a ready supply of high-quality water for preparing stock solutions and for the scores of laboratory operations normally dependent on distilled water.

The new apparatus, called the Deeminizer by its manufacturer, the Crystal Research Laboratories Inc. of Hartford, Conn., yields up to five gallons per hour of water equal in chemical quality to triple-distilled.

Fed with ordinary tap water, it can deliver a product with an electrical resistance of 10 million ohms—containing, in other words, only one part of ionic solids per 100 million parts of water.

It represents the first commercial application of the mixed-bed ion exchange technique, an important discovery announced only a few weeks ago by researchers at the Resinous Products Division of Rhom & Haas Co., Philadelphia chemical manufacturer. The instrument itself consists of a rigid polystyrene tube which accommodates a replaceable container filled with Deeminite—a mixed bed of specially converted Amberlite exchangers. The tube is mounted on a gray metal base, measuring 6 x 8 inches, which houses the meter.

In operation, a jar of water is up-ended in the top of the tube; the water passes through glass-fiber filters which remove physical impurities, then through the bed of resins which adsorb, or pick off and retain, the ionized impurities. Thus the single passage through the bed of resins produces a water free of sodium and silica, the sulfates and chlorides of calcium and magnesium, and other unwanted ions. Such a water contains no dissolved salts that interfere with the stability or accuracy of stock solutions, produce scale in steam sterilizers, or hamper the mixing and impede the working of photographic developers. The output is drawn off through a polyvinyl hose in the base.

A built-in electrical conductivity meter shows the purity of the effluent at any time, and indicates accurately when to replace the cartridge. In soft-water cities like Hartford, the manufacturer estimates that one-million-ohm water may be produced for approximately five cents per gallon; in less fortunate areas like Chicago, the estimated cost would be 25 cents.

(Continued on page 486)

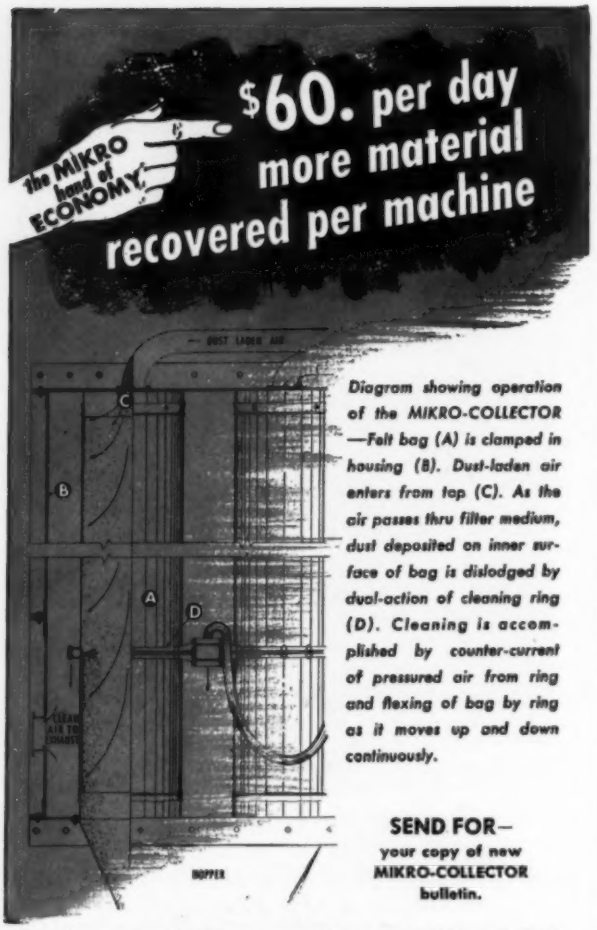


Diagram showing operation of the MIKRO-COLLECTOR —Felt bag (A) is clamped in housing (B). Dust-laden air enters from top (C). As the air passes thru filter medium, dust deposited on inner surface of bag is dislodged by dual-action of cleaning ring (D). Cleaning is accomplished by counter-current of pressured air from ring and flexing of bag by ring as it moves up and down continuously.

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- ★ High percentage of recovery—99.9% plus.
- ★ Greatly reduced filter cloth area means low maintenance costs, quick and easy material changeovers.
- ★ Constant uniform flow of dust-laden air.
- ★ Filter rate from 15 to 25 cfm. per sq. ft. of fabric.
- ★ Cleaning ring eliminates mechanical shaking of bag.

The revolutionary principles employed in MIKRO-COLLECTOR design insure optimum recovery and sensational filter rates. Our research laboratory and test facilities are available for your dust collection problem without charge or obligation.

*Patents applied for by H. J. Hersey, Jr., and Pulverizing Machinery Company.

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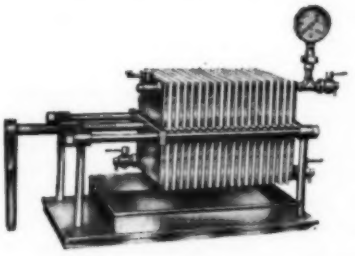

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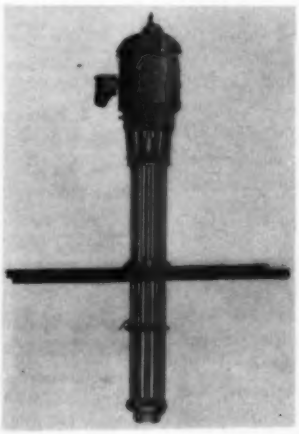

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PATENT THOUGHTS AND TRENDS

*by Thomas Cifelli, Jr., Patent Attorney**

Brief Comment on Proposed Revision of U. S. Patent Laws

In last month's issue of this journal, this department called attention to the proposed revision and amendment of the U. S. Patent Laws, as preliminarily set forth in a Congressional sub-committee draft. Those proposals which would change the patent laws were discussed briefly, no opinions being expressed as to the desirability of such proposals, the reader being left to exercise his own judgment.

Since last month's article was written, the writer has given considerable thought to the proposed changes in the U. S. Patent Laws and has participated in a serious discussion of the proposed changes with colleagues. As a result, he has arrived at some broad tentative conclusions which may be of some interest to the reader.

In the first place, the policy adopted by the Congressional committee deserves the highest commendation from all those interested in the U. S. Patent system. A high ranking official of the U. S. Patent Office was commissioned to draft the proposals and the official did an excellent, objective, job. The next step was to distribute the proposals to the patent bar and other interested groups for suggestions, comments and criticisms. After such comments are received, a bill will be introduced and hearings held thereon, after which it is presumed that a comprehensive statute acceptable to the patent groups will some day be enacted.

As regards the actual proposals for changing the present U. S. Patent Laws, these proposals fall generally into two categories: (1) Proposals which would codify the patent law as set forth in court decisions, even though not at present in statutory form; and (2) Proposals which would go beyond present statutory and case law.

As far as the proposals coming within category (1) above are concerned, it is believed that no serious objections will be met. While some people believe that the judge-made law has gone a little too far and now is not the time to give such law the effect of statutory status, it remains to be seen whether those who feel this way will be successful.

The proposals covered by category (2) are the ones which doubtless will be the most controversial. It is the writer's considered opinion that such proposals will not be in the best interest of the U. S. as a whole. In this connection, it is noted that these proposals are not new in the sense that they are original with their proponents. Each one of these proposals can be found in the patent laws of one or more European countries—including Russia, Thus, Great Britain and France permit the revocation of a patent. France, Great Britain and Russia have compulsory license requirements. France, Italy, Sweden and Germany (pre-war) permit short term or minor patents. France, Germany (pre-war), Great Britain, Italy and Sweden are among the European countries which have so-called patents of addition. And finally, just about every foreign country including Great Britain, France, Italy and Russia requires renewal fees from the patent owner in order to keep the patent in force.

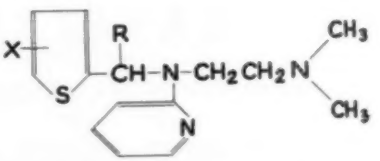
It is difficult to escape the thought that perhaps the idea is to cast the U. S. A. into the industrial and economic mold of the more enlightened countries. In saying this the writer realizes that his position leaves him open to the charge of nationalism which is supposed to be bad now. The statement however was not based on any nationalistic grounds but merely reflects the writer's inability to understand the logic of those who would tamper with an integral part of the industrial strength of the wealthiest and most democratic large country in the world in order to bring it in line with the economies of those whose standards of living are so much lower than ours.

Anti-Wonder Drugs

No, the title of this section is not a mistake, though it probably will come as a great surprise to many whose contact with scientific literature is confined to the reading of weekly or monthly publications of wide general circulation to learn that the so-called wonder drugs have their limitations too. In this connection U. S. patent 2,498,227 issued to L. H. Sutherland and assigned to American Cyanamid should be of some interest.

Sutherland's patent covers new antihistamines which are said to be useful in the alleviation of symptoms of hay fever and other respiratory allergies, certain types of asthma, food allergies, urticarial dermatoses, atopic dermatitis, and reactions to penicillin and sulfonamides.

The compounds covered by the patent have the following formula:



in which X is a member of the group consisting of hydrogen and halogen radicals and R is an alkyl radical, and the acid salts thereof.

According to the patent, the water soluble zirconium salts of the hydroxy aliphatic organic acids may be employed as anti-perspirants by applying a suitable solution thereof in water to the desired portion of the body, say under the arm pits. Such solution may contain a concentration of 10 per cent or more of the soluble zirconium salt although, generally, the concentrate will be less. Or, a solution of the salt in water may be compounded with a desired amount of volatile carrier liquid such as alcohol. Or, the salt may be mixed with a suitable carrier base, the latter being the preferred method of application. Due to the amount of water that may be incorporated in hydrogenated castor oils, this latter material is a suitable vehicle or base in which to distribute the anti-perspirant. An anti-perspirant cream may be prepared as follows:

*Newark, N. J.

Neutralized zirconium lactate	grams	4
Glycerine	ccs.	12
Hard hydrogenated castor oil	grams	10
Soft hydrogenated castor oil	"	70

An example of making a compound coming under the above class is as follows:

Alpha-2-thienylethanol having a boiling point of 89° to 92° C. at 11 mm. of mercury was prepared by the well known Grignard reaction from 0.75 mol of methyl magnesium iodide and 0.58 mol of 2-thiophenealdehyde in 50 cc. of anhydrous ether. A solution of 30 parts of alpha-2-thienylethanol in 132 parts of benzene was slowly saturated with anhydrous hydrogen bromide for 40 minutes. The product was dried and distilled in vacuum.

3.9 parts of sodamide was prepared in 200 parts of liquid ammonia. This was treated with 17 parts of dimethylaminoethylaminopyridine, and the resulting mixture was treated dropwise with 9 parts of alpha-2-thienylethyl bromide. Finally the ammonia was evaporated off while being replaced with toluene. The toluene solution was washed, dried, and distilled in vacuum. The product, N,N-dimethyl – N′ – (2-pyridyl) – N′ – (omega – methyl – 2 – thenyl) ethylenediamine boiled at 1 mm. pressure at 150°-151° C. The index of refraction was $n_D^{27} = 1.575$.

Anti-Anti Wonder Drugs

Sutherland's patent, just considered, deals with compounds which possess anti-histaminic properties. R. R. Widmann has no quarrel with histamine and in fact looked for a way to produce histamine or histamine-like substances within the tissues of the body. For his efforts, he obtained U. S. patents 2,498,777 and 2,498,778, assigned to Organic Chemicals, Inc. of Pasadena, California. As a matter of fact Widmann claims that his compositions improve the circulation of the blood and lymph in the tissues of areas affected by various vascular disorders.

In U. S. 2,498,777, Widmann combines histidine or its hydrochloride salt with pyridoxine or its hydrochloride salt to do the trick. Widmann claims that he is the first to administer histidine orally in either the powdered or liquid form and that he was first to administer histidine with pyridoxine to transform the histidine into histamine to combat vascular disorders. He prefers to administer orally his powdered product but states that it is all right to inject separately proper dosages of liquid histidine and liquid pyridoxine. Preferably the dosage of liquid histidine is injected in one area such as one hip and the dosage of pyridoxine is injected in a different area of the body, such as the other hip, though this is not necessary.

Crystalline histidine is said to be vastly superior to liquid histidine which cannot be used for the same purposes as the crystalline histidine. For instance a tablet or pill cannot be made from liquid histidine. Also, liquid histidine must be administered in sterile form in an ampule, which is very expensive. Also, the crystalline form is said to have a great advantage in that it does not have to be dissolved or put into a sterile form or placed in an ampule.

A dosage of the product which is said to have proved satisfactory consists of 200 milligrams of powdered histidine and 12½ milligrams of powdered pyridoxine, preferably mixed with a suitable binding agent such as starch.

In U. S. 2,498,778, Widmann states that he substantially inhibits the inactivation of histamine formed by the intercation of histidine and pyridoxine with anti-histaminase compounds such as ethylenediamines, tri-, tetra- and penta- methylendiamines.

The preferred ranges of ingredients in Widmann's compositions are given in the patent as follows:

Histidine	milligrams	200 to 600
Pyridoxine	"	5 to 50
Cysteine	"	100 to 400
Ascorbic acid	"	100 to 400
Ethylenediamine	grams	0.2 to 1.5
Crystalline hydrochloride salts of ethylenediamine	grams	0.2 to 1.5
Tetramethylenediamine	milligrams	0.2 to 1.5
Crystalline hydrochloride salts of tetramethylenediamine	milligrams	25 to 300

Zirconium-Containing Deodorant

H. L. Van Mater recently won U. S. patent 2,498,514, assigned to National Lead Company, on his findings that zirconium salts of hydroxy aliphatic acids possess the property of absorbing perspiration odors, are neutral or non-acid in chemical reaction and are non-irritating to the skin. Such salts may be used as anti-perspirants in simple water solutions or may be compounded with the usual cosmetic bases, such as mineral oil, hydroxy stearic acid, etc. and other cosmetic vehicles such as spermaceti and karaya gum.

The anti-perpsirant deodorant compounds can be prepared by combining any water soluble salt of zirconium, such as hydrated zirconium oxychloride, with an organic acid such as the hydroxy aliphatic acids, the mole ratios of the reactants being present in ranges that are somewhat critical in order to obtain complete reaction with the precipitation of a water insoluble zirconium compound which can subsequently be made water soluble by neutralization with an alkali.

RECENT PATENTS

2,494,678—**Les Francais—Separating progesterone from Cholesterol.**

2,494,745—**Am. Cyanamid—Preparation of Penicillin-Like Compound.**

2,494,930—**R. de Montaner—Iodinated Sulfonamides.**

2,495,298—**A. Szent-Gyorgyi et al—Preparation of Thrombin.**

2,495,370—**J. M. Field—Hair Remover.**

2,495,404—**G e i g y—Alkoxyphenylalkyl-Alkyl Amines.**

2,495,772—**Parke, Davis & Co.—Beta-(2-Biphenyloxy) Ethyl Beta-Haloalkyl Amines.**

2,496,064—**The Jewish Hospital of Brooklyn—Certain Iodinated Hydroxyphenyl Cycloalkyl Carboxylic Acids.**

2,496,270—**Synergistics, Inc.—Skin Dressings with Fugitive Colors, Red, when Applied, Became Colorless After Application.**

2,496,326 — **Winthrop - Stearns — Preparation of 3-(Lower Acyl) Amino-3-Caralkoxy-2-Piperidones.**

2,496,328—**Colgate Palmolive Peet—Preparation of Polyhydric Alcohol Esters of Fatty Acids.**

2,496,416,7—**Merck & Co.—Penicillamines and Oxazolone Derivatives.**

2,496,450—**Univ. of Pa.—19-Nordesoxycorticosterone.**

2,496,803—**Du Pont—Veratraldehyde from Vanillin. Vanillin is Methylated at pH of 9.0 to 9.5 and Then Acidified to pH of 4.0 to 5.0.**

2,496,848—**Wyeth—Crystalline Penicillin Salts.**

2,496,882 — **J. R. Geigy — N-Aroyl Alanine Amides.**

2,496,955-8—**Upjohn—Piperidines.**

2,496,968 — **Burroughs Wellcome — Alpha,Beta-2,2′-Tetramethyl-4:4′ — Dihydroxystilbene.**

2,497,730-1-2—**Merck—Hydroxy-pyridines.**

2,497,848—**M. F. Currie—Hair Curling Device.**

2,498,165—**U. S. A.—Bacitracin Process.**

2,498,200—**E. Lilly—Thiamin, Stabilized with Thioglycerol, Thiosorbitol, and Thioglucose.**

2,498,430-5—**Hoffmann-LaRoche—Piperidines.**

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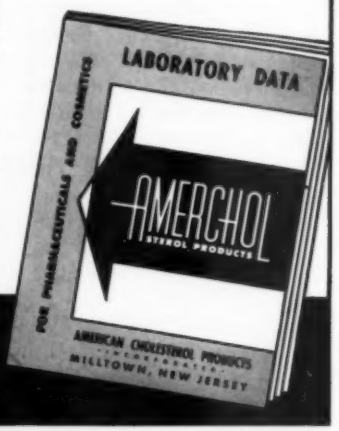

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READERS' QUESTIONS

HORMONE CREAM BASES: I have read a number of reports on hormone creams, but none of the investigators seem to have gone into any detail on the type of base most suitable for incorporating the estrogens. Have I overlooked any information along these lines? I vaguely recall that some years ago you did carry an article which included formulas for hormone creams. Am I right, and can you give me the reference? Brooklyn.

In a discussion on the effects of hormone creams on the skin, before a meeting of the Society of Cosmetic Chemists, Dr. M. A. Goldzieher, an authority in the use of hormone creams, pointed out that any fatty base is satisfactory for the topical application of estrogen. He uses petrolatum but stated that lanolin, absorption bases and similar materials, could be used as the vehicles. With respect to your memory, I can say that it is good. We did publish an article by Dr. W. M. Malisoff, in the April 1944 issue, page 407, of DRUG & COSMETIC INDUSTRY. Two formulas were given.

REMOVING PEROXIDE FROM THE HAIR: Can you give me information concerning the composition of a rinse to remove lingering peroxide from hair, particularly after bleaching? Indianapolis.

Experts in the field advise that after bleaching, the hair and scalp should be washed free from peroxide. I know that in beauty parlor practice, the residue of bleach is removed with a plain shampoo. Then warm, not hot, water is used to rinse the hair thoroughly.

OLD FASHIONED SACHETS: I am interested in making the old fashioned kind of sachets, using flower petals, odorous roots, and such. None of the books I have consulted seem to have very much information on these products. Forest Hills.

Products of this sort have been described in Poucher's text and in other older publications. The following from Askinson's book on perfumes and cosmetics, provides two typical formulas.

Ceylon Sachet Powder

Mace	**23 oz.**
Patchouly	**28 oz.**
Vetiver root	**35 oz.**
Rose leaves	**35 oz.**

Cyprian Sachet Powder

Cedar wood	**2 lbs.**
Rhodium	**2 lbs.**
Sandal wood	**2 lbs.**
Oil of rhodium	**½ oz.**

The oil is mixed with the finely powdered or rasped woods and distributed in the mass by trituration.

INFORMATION ON QUATERNARY AMMONIUM COMPOUNDS: It would be greatly appreciated if you will inform us as to which issues of your publication carry formulations of beauty and cosmetic preparations, which included certain percentages of the quaternary ammonium germicide. New York.

An article on the uses of quaternary ammonium compounds in cosmetics by Harry Hilfer, appeared in the October 1949 issue, page 394. A two part discussion of the uses of these compounds in the drug and cosmetic fields, by M. A. Lesser, was published in the April, 1949 issue, page 434 and in the May 1949 issue, page 558.

HUMECTANT PROBLEM: Some years ago, we made a vanishing cream with a fairly high proportion of glycerine. It became necessary for us to modify our formula, using sorbitol and later, propylene glycol, instead of the glycerine. However, we often have trouble because within the few months between factory and consumer the cream will dry, crack and shrink. We have tried a number of trial-and-error variations in the formula and procedure, but so far we do not feel that we have obtained a dependable product. Miami.

Obviously, your trouble lies in your humectant, which helps to maintain the moisture content of your cream at proper levels. Of course, other factors enter the picture but this substance is the only one which you have varied in your formula. Recent studies have shown that other humectants or hygroscopic materials are not always effective substitutes for glycerine in all types of emulsions. Glycerine is better for some, propylene glycol is better in others, while sorbitol seems to hold a somewhat intermediate position. I would suggest that you go back to the use of glycerine or to a combination of glycerine with sorbitol; combinations of this sort have proved effective on several occasions.

CLOUDING OF SHAMPOOS: During recent months I have been experimenting with shampoos made by dissolving concentrated soap bases or synthetic detergents in water. I find, however, that I have considerable clouding of the solution when it becomes chilly and when the material has stood on the shelf for a period of time. Have you any suggestion for overcoming this difficulty? Chicago.

I think that some of your difficulty with respect to cloudiness can be overcome by using only distilled water. This is especially important in the case of the shampoos made with soap. Another point which will be very helpful is to chill your preparations and filter them before bottling.

YOUR TRADE-MARK RECORD

by John H. Graham
International Patent and Trade-Mark Consultant

What is a Trade-Mark?

Every trade and profession has its own language. To the outsider this often causes confusion and those of us who deal with trade-mark matters are no exception. This was brought home to me the other day when a friend of long standing, in the beauty business, told me "she always reads my column, what she could understand of it."

To those who deal in trade-mark matters directly, "denoting origin," "descriptiveness" and "likelihood to deceive" all have a positive meaning. But there are others who would like to be up on their trade-marks, yet do not deal direct enough to follow the play. They are useful people, too, particularly when a new mark is being born. A trade-mark should not be the brainstorm of one person. Sales should have a say in it. Production can often contribute. A new trade-mark is an expensive thing, not the registration so much as packaging, advertising and selling.

In ordinary language, then, just what is a trade-mark? It is some device which denotes origin. It is a means of saying who makes or who sells the goods. It places the responsibility on the person behind the goods. The value of a trade-mark lies very much in this denoting origin. The buying public recognize the mark and expect the quality they are used to when they buy. That is why two marks which are similar in sound or looks are not allowed to exist. The buying public must be protected from such "deceit," however unintentional.

The first use of trade-marks goes way back in history. The caveman who signed his crude carvings with some motif which struck his fancy was using a trade-mark of a sort. The Egyptians used them as did the Romans. Perhaps the first real attempt to employ them in commerce, in actual trade, was by the various Guilds in England. There the masters of their craft each used their guildmark and the use was jealously guarded and restricted to only full fledged members of that guild. Each man's work had to be up to a certain standard of craftmanship. Each guildmark was on file for anyone to see. This meant registration of a mark to denote origin for the purpose of keeping up quality.

There is not too much difference today, regarding that phase of trade-marks. Under our new (Lanham) Act, the device used to denote origin has been expanding from a mere design or motif. Now, as recently reported here, even the musical chimes of NBC have been registered as a trade-mark.

Through the years, few basic changes have been made in the original concept of trade-marks. From the Egyptians through the Roman era and up to today man has wanted to tell the world "these are my goods—they have quality." To do this and to prevent others from cashing in on his success, he adopts a trade-mark and makes it his No. 1 salesman.

With thousands of marks existing however the simple registration of the Guilds is no longer possible and the law courts have had to keep pace in order to protect the owner of the trade-mark from unfair acts by his competitors.

One of the major things the Courts look for is possible descriptiveness of a mark. No trade-mark which described the goods with which it is associated can be upheld.

The reason for this is somewhat obvious. While it is agreed that there is a natural tendency to call your new nail lacquer "staybright," because it does, this is unfair to others. In the advertising of equivalent products they may wish to say that their nail lacquer is one which stays bright. If such wording were appropriated by one person and if he could successfully sue to prevent others from using same, then soon there would not be enough advertising language to go around.

So a trade-mark must not be descriptive of the goods nor of something the goods can do (like "shave closer" for razors).

Obviously, few issues are as easy as the examples given. Usually, there is a question of reasonable doubt which only a Court of Law can resolve. This question of descriptiveness is one often very hard to answer. There are no tests you can apply. The decisions often reported here are very contradictory. Even after years of experience "calling them," it is easy to be wrong.

Anyway, it is best to stay away from a mark which describes the goods themselves, or what they accomplish or what they look like or anything which is obviously a description of the goods, their character or results they achieve!

The final thing is this "likelihood to deceive." It is a tough one to understand.

Mainly it is a question of protecting the buying public. They must not be deceived. If there is any chance of a customer getting the wrong thing asked for because two trade-marks are similar, then the two marks cannot stand for the same or similar goods. The earlier mark used usually gets the award of a clear field in such cases.

This likelihood of deceiving the public is usually utilized when the goods with which the two marks are associated are

udged to be the same, similar or likely to be sold over the same counter and the two marks look or sound so alike that a buyer could be confused. This does not mean a side by side comparison.

So you ask for a product known as "drill" and you get "drull," the same or a similar product. These two marks cannot stand. One must be set aside because you, the buying public, have been deceived.

That's all there is to it, folks, but I wish it all were this simple.

The following Trade-Marks were recently published in the Official Gazette of the United States Patent Office.

Allito—51—H—571,579
Ruby B. Shelton, Kilgore, Tex.
Ser. Jan. 3, 1949 D. U. Nov. 26, 1948

Amami—51—ABCHK—570,223 (And Des.)
Prichard & Constance (Alami) Inc., Bloomfield, N. J.
Ser. Dec. 8, 1948 D. U. June, 1909

Apropos—51—B—568,171
Campana Sales Co., DBA Anjou & Parfums Anjou, New York, N. Y.
Ser. Nov. 4, 1948 D. U. 1940

Cadoricin—51 & 52—ACHGK—510,232
Cadoricin Societe Anonyme, Seine Fr.
Ser. Oct. 4, 1946 D. U. Since 1928

Camay—52—A—579,452 (And Des.)
The Procter & Gamble Co., Cinn Ohio
Ser. May 27, 1949 D. U. May, 1932

Canamin—51—M—555,373 (And Des.)
Canamin Corp., N. Y., N. Y.
Ser. April 23, 1948 D. U. Nov. 6, 1947

Cremacal—18—C—563,867
Numotizine Inc., Chicago, Ill.
Ser. Aug. 23, 1948 D. U. June 18, 1948

Cuir du Canada—52—A—569,865
Les Parfums De Dana Inc., N. Y., N. Y.
Ser. Dec. 3, 1948 D. U. Nov. 26, 1948

Cyl-Dent—51—K—566,427
Skin-Tested Drug Products Inc., N. Y., N Y.
Ser. Sept. 20, 1948 D. U. April 12, 1948

De Kama—51—C—552,958 (And Des.)
De Kama Inc., Los Angeles, Calif.
Ser. March 25, 1948 D. U. Since 1929

Dir—Teff—52—A—520,034
Highley Chemical Co., Dubuque, Iowa
Ser. April 2, 1947 D. U. March 8, 1929

Enchantment—52—AC—550,868
The De Pree Co., Holland, Mich.
Ser. July 8. 1948 D. U. June 15, 1940

Fentone—51 & 52—ABCDH—568,722
Catherine C. Fenton, Waterbury, Conn.
Ser. Nov. 13, 1948 D. U. Nov. 9, 1928

Fiend Spray—VI—T—563,308
The McCambridge & McCambridge Co., Baltimore, Md.
Ser. June 5, 1946 D. U. Aug. 24, 1945

Forest Pine—51—AC—568,233
Bathasweet Corp., N. Y., N. Y.
Ser. Nov. 5, 1948 D. U. Since 1941

Gramoderm—18—M—570,910
Schering Corp., Bloomfield, N. J.
Ser. Dec. 21, 1948 D. U. Nov. 1, 1948

Jewel Box—51—G—569,001
Gaylord-Shelton Inc., Chicago, Ill.
Ser. Nov. 18, 1948 D. U. Aug. 29, 1947

Keep—Neat—51—H—568,517
Middlebrooke-Lancaster Inc., Brooklyn, N. Y.
Ser. Nov. 10, 1948 D. U. Jan. 15, 1923

Latoja—51—ACK—555,458
La Toja, Pontevedra, Spain
Ser. Spril 23, 1948 D. U. Dec. 11, 1942

Lucien LeLong—52—A—530,221
Lucien LeLong, Inc., Chicago, Ill.
Ser. Aug. 1, 1947 D. U. Dec. 1928

Make-Up-Pen—51—CM—520,939
Murray Dulberg, DBA The Ilipen Co., N. Y., N. Y.
Ser. Sept. 8, 1948 D. U. Aug. 20, 1947

Nilette—51—D—542,179
Skinner Mfg. Co., Omaha, Neb.
Ser. Nov. 24, 1947 D. U. Oct. 24, 1947

Queen Rezolium—51—H—542,872
Newbro Mfg., Atlanta, Ga.
Ser. Dec. 1, 1947 D. U. Mar. 22, 1945

Radelle—51 & 52—H—566,691
Commercial Labs., Inc., N. Y., N. Y.
Ser. Oct. 8, 1948 D. U. Aug. 19, 1948

Razzel-Dazzel—51—C—550,602
Lucien LeLong, Inc., Chicago, Ill.
Ser. Feb. 26, 1948 D. U. Jan. 14, 1948

Silk-Film—51—C—566,171
Helena Rubinstein Inc., N. Y., N. Y.
Ser. Sept. 30, 1948 D. U. Sept. 10, 1948

Sophisti—Color—51—C—560,888
Richard Hudnut, N. Y., N. Y.
Ser. July 8, 1948 D. U. July 2, 1948

Toboggan—51—BCK—560,030
Les Parfums Brisson, S.A.R.L. Paris, Fr.
Ser. Oct. 26, 1949 D. U. Dec. 9, 1948

Toni—51—H—572,283
The Toni Co., Chicago, Ill. Assignor to Gillette Safety Razor Co., Boston, Mass.
Ser. Jan. 15, 1949 D. U. Dec. 1, 1948

Touch—18—C—561, 49
Hiscox Chemical Inc., Bradenton, Fla.
Ser. July 20, 1948 D. U. July 30, 1947

Twist—51—H—549,636
Harf Inc., Hilltown, Pa.
Ser. Feb. 13, 1948 D. U. Sept. 15, 1939

Whink—52—AM—566,781
Whink Products Co., Eldora, Iowa
Ser. Oct. 9, 1948 D. U. Feb. 24, 1948

Wincide—VI—T—552,858
Industrial Soap Co., St. Louis, Mo.
Ser. March 24, 1948 D. U. Feb. 27, 1945

Act of 1946

The following Trade-Marks have been recently republished under the terms of the above (Lanham Act). No opposition can be filed against them but they are all subject to cancellation proceedings.

Ma Violette—51—BC—261,551
Reg. Sept. 17, 1929 to Henri Bendel, Inc., N. Y., N. Y.
Repub. by registrant

M. W. Sargeant—51—ABCH—308,873
Reg. Dec. 26, 1933 to Sargeant Acnoid Pharmaceutical Co., Inc., East Orange, N. J.
Repub. by S. M. Sargeant Highland Mills, N. Y.

Prizma—52—A—203,719
Reg. Sept. 22, 1925 to The Remmers-Graham Co., Cinn., Ohio
Repub. by The Procter & Gamble Co., Cinn., Ohio

Protex—52—A—308,577
Reg. Dec. 12, 1933 to Iowa Soap Co., Burlington, Iowa
Repub. by registrant

Rascal Red—51—C—385,191
Reg. Feb. 18, 1941 to Pond's Extract Co., N. Y., N. Y.
Repub. by registrant

Royal Pine—52—A—321,618
Reg. Feb. 5, 1935 to Iowa Soap Co., Burlington, Iowa
Repub. by registrant

Wavine—51—H—417,062
Reg. Oct. 16, 1945 to The Boyd Co.,, Inc., Birmingham, Ala.
Repub. by registrant

White House—52—A—148,091
Reg. Nov. 8, 1921 to Iowa Soap Co., Burlington, Iowa
Repub. by registrant

READERS' QUESTIONS

HAIR AND SCALP PREPARATIONS: In a book on the diseases of the hair, published some years ago, I read a statement to the effect that preparations containing pilocarpine had a specific effect on the scalp and on hair growth. I would like to know if you could send me an up-to-date formula using pilocarpine, the preparation to be a liquid. I would also like a modern formula for an effective sulfur cream for seborrheic dermatitis. Philadelphia.

Pilocarpine is not as widely used today as formerly in the preparation of scalp lotions. However, Goodman's text provides the following formula for a scalp lotion:

Castor oil	**1 part**
Pilocarpine hydrochloride	**2 parts**
Tincture of cantharides	**2 "**
Tincture of capsicum	**2 "**
Alcohol, 85 per cent, enough to make	**100 "**

Dissolve the ingredients in the alcohol.

A modern formula for a preparation useful in treating seborrheic dermatitis is given in the text by Sulzberger and Wolf as follows:

Precipitated sulfur	**3.0 parts**
Salicylic acid	**1.8 "**
Resorcinol	**1.8 "**
Castor oil	**6.0 "**
Petrolatum, to make	**60.0 "**

Getting Started

(Continued from page 396)

expenditures in local newspaper advertising and promotion aids to work without waste. Often, of major importance, any marketing success in a department store has news value to other community retailers, is often news-worthy to retailers nationally. Leading department stores in major cities are national institutions, so far as reputation goes. They exert real influence on retail thinking.

You now have a brief resume of the various retail classifications, the different retail opportunities open to you. Combined with your own experience, this should enable you to pick a starting point and to outline at least the immediate path to follow.

It seems fairly clear that you must confine your thinking to a choice between the department store and the drug store. You have neither the experience, the capital or other resources to move in any of these other fields.

The department store, as has been noted, provides normally the best opportunities for the introduction of a new cosmetic product. Your product, if it is priced at $1.00 or more, is suited for this type of distribution. Success in any one well-known department store gives a substantial push to further retail expansion, far more than you can acquire from any other kind of retail store.

You should have at least $1,000 to provide for advertising, promotions and other expenses before you approach a major department store. Remember, you can't afford to fail on this first retail venture, at least not with the exposure you would receive in a promotion in this kind of store. You must have a success, not a failure, to start your business moving.

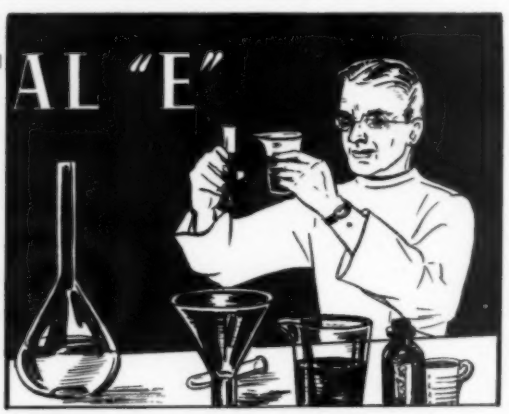
If not a major department store, why not a good secondary one or one specializing in a city section?

Here you lose some of the advantages of city-wide traffic and its economy in using newspaper space and other expenditures for promotions. You lose some of the prestige of a leading cosmetic department with both the public and other retailers. You will work just as hard, spend about as much, for considerably less advantages in return.

There is a very definite technique in marketing through a department store which you do not possess. This technique requires more capital for initial investment than you should spend at this point in your experience with your product and in selling.

If you agree with these conclusions that leaves the independent druggist as your selection for a retail starting point and for your immediate or at least, short term plans for expansion. Many famous names and reputations in our trade started and grew up in drug stores. In your city and in every important city there are fine drug stores with fine professional reputations operated by druggists who have discovered a flair and a particular liking for perfumes and cosmetics. These stores

PLYMOUTH CRYSTAL "E" WHITE OIL



This oil has been the standard for many of America's very oldest cream manufacturers since their origin. It is water-white and crystal-pure . . . odorless and tasteless . . . of U. S. P. Acid Test and free of fluorescence . . . especially refined for the cosmetic industry and as pure as a mineral oil can be made. Because of its extra lightness you should specify it for the soft, light, fluffy creams demanded today.

Other mineral oils of heavier body if desired.

PLYMOUTH PETROLATUMS U. S. P.

All Petrolatums are refined and straight filtered from Pennsylvania Crude. None are acid treated and all are long fiber and of U. S. P grades.

Both soft, low melting point consistencies and pharmaceutical grades . . . as well as the regular grades for the drug and cosmetic industry. All grades are offered from Snow White to Amber.

A *Complete* LINE OF COSMETIC RAW MATERIALS

M. W. PARSONS

59 BEEKMAN STREET *Imports* Telephone BEEKMAN 3-3162—3163—3164

NEW YORK N Y U S A and PLYMOUTH ORGANIC LABORATORIES, Inc.

have been recognized by the leading perfume and cosmetic companies and they carry an excellent selection of prestige products as well as the demand utility cosmetics of the trade.

These stores have a cosmetic clientele and they have good trained selling. You need both, so do not consider or waste time with a store that does not have at least one, full-time, trained cosmetic salesgirl. And do not waste time unless the selection of trade names you see on display and the general character and location of the department gives full evidence of a store clientele for perfumes and cosmetics.

You will find that this kind of druggist is more apt to listen intelligently to your technical story of product quality. He is a professional man, a pharmacist, and he has a keener understanding of selling products based upon formulated value, not necessarily supported by large advertising, than most other kinds of retailers.

You must locate this kind of man because you must make your reputation both with retailers and the consumer through men of this sort. At least you must do this until you acquire some capital and momentum to move faster.

The manner in which you cooperate with the first store to get your product in motion, must be your own formula. There are many forms and methods of retail cooperation. Some must be purchased, some come through good, intelligent selling.

Remember it will do no good to simply sell a few jars and get your cream in the store. It Must Be Visible. All your energy and the best of your intelligence must be directed to securing visibility and display on the counter, in the window, wherever possible.

The salesgirl is your principal key to making good in this store. Be sure she knows all about your cream, likes it, and if you can sell her the idea, uses it. Give her some for her friends and family. Make number one, your determination to have her on your side.

You have selected a successful store, successful in building a cosmetic clientele. Therefore the druggist proprietor and the salesgirl have sound, tested ideas as to what will pay for their particular store in advertising and in other ways to reach their clientele and their area prospects. Seek their advice and try to work closely with them.

The money you will need for store cooperation, promotion and advertising must eventually come from sales of your product. Be sure you have a safe mark-up. Be sure your trade discounts are right. Experience shows that a cream which sells at retail for $1.00 should not cost you, fully packaged, over 20 cents. A six-time mark-up would be safer. You may have to reach a moderate volume before your cost will permit this mark-up, but be sure that it is in sight within reasonable limits.

When you have established a successful business in this one store, you are ready to step out within the limits of your capital and energy.

(Continued on page 454)

COMPOUNDER'S CORNER

Shampoo Tints

Shampoo tints, observes S. P. Jannaway in *The Alchimist* (3:227, 1949) represent the latest type of dual-purpose hair cosmetic. They are designed not merely to wash the hair clean but also to tint it or bring out the natural tints. They range from oxidation dye vehicles, which are truly hair dyes, to shampoos containing non-toxic water-soluble dyes, such as are normally used for tinting toilet soaps and cosmetics. They also include shampoos containing henna and other vegetable dyes etc. and bleaching agents.

The most satisfactory shampoo tints, from the point of view of color permanence, are those containing oxidization colors of the diamine group. They are, in fact, diluted hair dyes—relatively weak solutions of paraphenylene diamine and similar "penetrating" dyes in an aqueous vehicle containing soap or a synthetic detergent, or both, together with 1 per cent or so of methoxy cellulose or other "bodying" agents, to increase the viscosity.

The simplest but least satisfactory type of shampoo tint is that which merely consists of a shampoo containing a proportion of water-soluble dyes. Examples of this type were on sale in Germany about 1939. The following is a formula for a blonde shampoo tint:

Sodium sulphate	**44.0 parts**
Sulphated fatty alcohol powder	**45.0 "**
Perfume	**0.3 "**
Colors	**0.5 per cent**

In this case, the colors are gold yellow and chocolate brown. For a corresponding brunette shampoo tint, 0.5 per cent of a brown black color mixture is used.

Jannaway also notes that henna and its chief active constituent lawsone deservedly find application in shampoo tints as well as in hair dyes. Aqueous extracts of henna exhibit a pH around 5.5. Henna and lawsone (2-hydroxy-1: 4 naphtaquinone) should both be used in mildly acid media, for only under such conditions are their full tinctorial properties manifested. They are excellent dyes for the keratin of the hair and may be used either alone or in suitable admixture with other dyes. Synthetic lawsone is now readily obtainable, but has the disadvantage of limited solubility. While henna has been incorporated in the past in soap-type shampoos, there is now no valid excuse for this practice. It should be used in conjunction with soapless shampoos, rendered slightly acid by the inclusion of small amounts of citric, tartaric, adipic or other suitable weak acids. Thus an auburn shampoo tint may consist of:

Sulphated fatty alcohol powder	**25 parts**
Tartaric acid	**3-5 "**
Sodium sulphate	**60-65 "**
Henna leaves, powdered	**7-10 "**
Perfume and preservative	**sufficient**

Other shades may be obtained by pre-mixing the henna powder with traces of modifying agents.

For making a blonde shampoo tint, Jannaway suggests the following:

Persulphosal (persulphated fatty alcohol powder)	**2 parts**
Sodium lauryl sulphate	**5 "**
Boric acid	**1 "**
Dried sodium sulphate	**9 "**

More actively bleaching shampoos may be made by increasing the persulphated alcohol content or by incorporating sodium perborate or percarbonate in a powdered soap and borax base. In this type of product, however, the bleaching action should not be too drastic, nor should the preparation be irritant to the scalp.

Useful Dusting Powders

Among the practical formulas presented by M. O. Holland (*Pharm. Intermat.* 3:38, Nov. 1949) are two formulas for making useful dusting powders. One of these, an antiseptic dusting powder, calls for:

Zinc undecylenate	**20 per cent**
Undecylenic acid	**2 " "**
Talc, to make	**100 " "**

The second indicated for use in cases of hyperhidrosis and for epidermophytosis of the toe clefts, is known as Compound Powder of Sodium Hexametaphosphate. It is made from:

Sodium hexametaphosphate	**5 per cent**
Salicylic acid	**2 " "**
Boric acid	**5 " "**
Zinc oxide	**40 " "**
Talc, to make	**100 " "**

Compatible Lotion Vehicles

The lotion, say L. E. Ohmart and M. J. Stoklosa (*J. A. Ph. A.*, Pract. Ed. 11:104, 1950) is one of the most useful types of preparations available to the dermatologist. Unlike ointments, however, the usefulness of this type of preparation is limited by the fact that there is no official lotion intended to be used solely as a vehicle. It was felt that there ought to be included in the official compendia one or more lotion vehicles having a wide range of compatability with the substances ordinarily prescribed by dermatologists.

To this end, six lotion vehicles were prepared and tested with the following drugs in the proportions commonly used in dermatological practice: Calamine, zinc oxide, precipitated sulfur, precipitated sulfur and salicylic acid, cade oil, ammoniated mercury, phenol, menthol. Whitfield's combination, coal tar solution, ichthammol, boric acid, starch, benzocaine, talc, and resorcinol. It was found that the following lotion offers the widest range of compatibility:

Cetyl alcohol	**15.0 Gm.**
White wax	**1.0 Gm.**
Glycerine	**50.0 cc.**
Sodium lauryl sulfate	**5.0 Gm.**
Water, to make	**1,000.0 cc.**

Melt the cetyl alcohol and the white wax and heat the melted mixture to 80° C. Dissolve the sodium lauryl sulfate in a mixture of the glycerine and 300 cc. of water, and heat to 80° C. Add the aqueous phase to the oil phase very slowly, stirring constantly until the emulsion forms. Continue to stir until the mixture has cooled to about 40° C., add enough water to make the product measure 1,000 cc., and mix thoroughly.

This lotion was found to be fully compatible with all of the medicaments tested, except cade oil. The lotion made with cade oil showed a slight separation into layers after standing for 14 days, but when shaken, the lotion was satisfactory.

Preserving Cosmetic Creams

In discussing various aspects of cosmetic creams, F. Atkins (*Manuf. Chem.* 21:51, 1950) presents some interesting and useful information on the preservation of such products. He notes that it is generally recognized that trouble with deterioration of cosmetic creams during storage, due to either mold formation or bacterial action, is confined mainly to oil-in-water emulsions. It rarely occurs with true water-in-oil emulsion creams. The reasons, says he, are fairly obvious. The organisms, be they spores or bacteria, responsible for the trouble need an aqueous medium in which to grow. In a water-in-oil cream the water is surrounded by inhospitable oil and they fail to multiply. Most cosmetic creams are automatically heat-sterilized during manufacture, but no matter what hygienic measures are taken it is virtually impossible to guarantee that there will be no infection from air-borne spores or bacteria during cooling or filling. Even if this could be guaranteed a jar of cream would not long remain sterile in use by the consumer and so some preservative must be incorporated, particularly with certain types of vanishing cream.

Atkins notes that in the past 20 years or so a number of preservatives have been tried and the field has been narrowed down until today only one type of preservative is in general use for cosmetic creams—the esters of *p*-hydroxybenzoic acid. Of these the methyl ester and the propyl ester are the two generally favored. The fact that these two preservatives have been so widely accepted is sufficient indication of their advantages, which need not be further discussed. The question which does call for some careful consideration is which should be used, methyl ester or propyl ester or both?

On the basis of his own experience Atkins is of the opinion that the methyl ester is the more reliable preservative. To test the validity of this view, he carried out a series of experiments with a typical stearate cream. His observations strongly suggest that better results are more likely with the methyl ester than with the propyl ester. He also noted that mixtures of the two esters were effective only when the finished product contained at least 0.1 per cent methyl ester. Results with mixtures did not support the widely held belief that a combination of methyl and propyl esters is more effective than either used alone.

Buffered Acetylsalicylic Acid

W. D. Paul, R. L. Dryer and J. I. Routh (*J. A. Ph. A.*, Scient Ed. 39:21, 1950) have pointed out that there have been frequent reports of gastrointestinal disturbances following salicylate medication. Many attempts have been made to reduce the gastric effects, notably by the use of enteric coatings, added buffer agents, or by the use of slowly hydrolyzable salicylate salts. Most of these methods are objectionable since the rate of absorption, as measured by blood salicylate levels, is not constant. Hence a study was undertaken to find a suitable buffering agent for salicylates which would minimize the gastric irritation and still permit rapid absorption.

As a result of these studies a new buffer system consisting of aluminum dihydroxyaminoacetate and magnesium carbonate has been developed. When added to acetylsalicylic acid it reduces gastrointestinal distress in man and gastric damage in rats. It also increases the rate of absorption of salicylate from the gastrointestinal tract at least twofold. These higher levels, obtained in shorter time, provide more rapid application of the analgesic, antipyretic, and antirheumatic effects of acetylsalicylic acid than has been possible previously.

Amphetamine Tablets

In a note in the *Bulletin of the American Society of Hospital Pharmacists* (6:302, 1949), G. L. Phillips states that dextro rotatory amphetamine phosphate tablets (5.0) mg. can be manufactured according to the following formula:

Dextro amphetamine phosphate	**50.0 Gm.**
Sitro Dye	**1.0 Gm.**
Lactose	**1029.0 Gm.**
Starch	**130.0 Gm.**
Magnesium stearate	**26.0 Gm.**
Talc, purified	**65.0 Gm.**
Methyl cellulose 1500 cps 2 per cent	**sufficient**

Mix the sitro dye and the d-amphetamine phosphate intimately in a mortar. Sieve this mixture through a No. 30 screen. Then mix carefully with divided portions of the sieved lactose and starch. Granulate with methyl cellulose 1500 cps (2 per cent solution) through a No. 12 screen. When dry reduce through a No. 16 screen, add lubricant and compress using a 5/16 inch dye. Each tablet should weigh approximately 0.13 Gm. Formula quantity given is for 10 000 tablets. Tablets of racemic amphetamine phosphate or sulfate can be made using the same basic formula.

T. G. A. Standard for Urea

The Toilet Goods Association Standard Number 33 for urea was issued on February 15, 1950. According to the definition given in this specification, urea may occur either as colorless to white prismatic crystals or as a white crystalline powder consisting essentially of $(NH_2)_2$ CO. Data on the solubility of the practically odorless compounds are given. Also indicated are test methods of identification and for determining residue on ignition, melting point, and content of chloride, sulfate, lead and arsenic. A T. G. A. method for minimum urea content (99.5 per cent) determination is also given.

Ephedrine Isotonic Nasal Spray

The advantages of Ephedrine Isotonic are indicated in a bulletin issued by the Bureau of Professional Relations, College of Pharmacy, University of Florida. The recommended preparation consists of:

Ephedrine hydrochloride	**0.60 Gm.**
Chlorobritanol	**0.30 Gm.**
Menthol	**0.06 Gm.**
Alcohol	**1.00 cc.**
Dextrose	**2.00 Gm.**
Distilled water, to make	**60.00 cc.**

It is noted that this solution, also known as Ephedrine in Isotonic Dextrose, produces prompt relief of congestion without slowing ciliary activity or destroying the epithelium. As a vasoconstrictor of prompt and relatively non-irritating action, Ephedrine in Isotonic Dextrose is indicated in treatment of inflammation and engorgement of the nasal mucosa. It is especially indicated as a nasal spray or drops in rhinitis and sinusitis and hay fever to shrink the congested mucous membrane. The shrinkage of congested turbinates begins within a few minutes and persists up to three hours, which differentiates ephedrine from its synthetic analogs which have a more fleeting action. Prolonged use does not seem to produce cumulative effects. The official levo-ephedrine is about twice as potent as the racemic (d-l) synthetic alkaloid.

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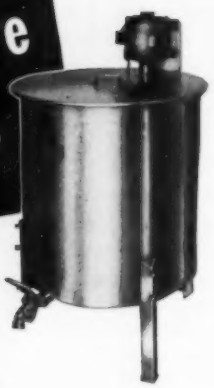

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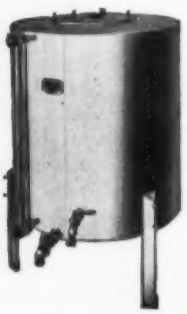

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Getting Started

(Continued from page 451)

You now have a retail success to lay before other stores, you have a formula for operation in a store which works, you have proved that with your methods enough women will buy your cream to make it a worthwhile retail account, you have found that these women like your cream, come back for more, even some tell their friends.

You must plan the next phase of your business with caution, and with fixed objectives in view. There are two general methods of expanding distribution. The first method is horizontal expansion, that is the selection of key stores in key cities over a wide area or nationally. This is expansion in terms of the layers of a cake—eating the icing first. This method works best with products that have some strong element of news, rather than closely competitive products. It works best for department store. It also takes much more capital.

You will probably find that the vertical method of expansion is better suited to your need. This means the addition of new, selected stores in the general community of your first store. Don't trespass at this stage on the clientele of your first store, diluting his trade in your products or interrupting the contacts you have made with his clientele. Pick the kind of store you need in a new, adjacent trading area.

In accepting vertical expansion you are working in depth in a single general community. Your objective is the selected, cosmetic-minded, independent drug store. You are working toward the department store.

Once you have accomplished a position in this first community, you are in fact thoroughly established in business. You have a community standing, a reputation with a worthwhile group of retailers and consumers. Your future expansion can be a repetition of this vertical procedure or a turn to horizontal expansion.

By this time you won't need advice. You probably wouldn't take it if you got it. You are on your way.

Manufacture of Tablets

(Continued from page 409)

spection when a uniform blend is developed.

The time required to obtain a homogeneous blend depends, of course, on the size of the batch and the efficiency of the mixer. The final result naturally is determined in the control or assay department.

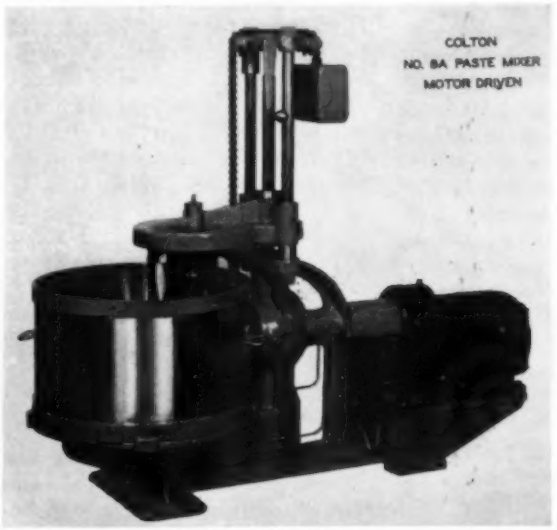
Mixers for Granulating. As mentioned in the first article the granulating operation is probably the most important one in the whole series and as there are many different types of mixers careful thought should be given to the choice of this equipment. I doubt if there is any other field in the processing industries in which machines have been developed to such a degree of specialization as in the mixer field, and yet no one seems to have come up with one specifically designed for granulating tablet formulations.

Therefore, the tablet makers of the pharmaceutical industry, noted for their resourcefulness, have adopted

machines from other fields and put them to work with satisfactory results.

One could almost write a book on mixers alone, but I will confine myself to the few types most practical and widely used today throughou the industry.

Pony Mixer. This machine was originally designed as a paint mixer which is a far cry from tablet granulations, yet it has found wide acceptance in pharmaceutical tablet departments. I know of many tablet men who will not use any other machine. They will argue all day on its merits.



The pony mixer is essentially a rotating bowl or tank inside of which are four agitator blades rotating in the opposite direction. These blades are set off center and the rotation of the bowl continuously provides a fresh portion of material, so that a thorough mix is obtained in a short period of time. A fixed scraper blade prevents caking to the sides of the tank.

A pony mixer is a fairly versatile machine for small or medium sized plants and does not require too large a cash outlay. It can be used for dry mixing and also preparing tablet masses. As it is very easy to clean it can be kept in almost continuous use by using several mixing bowls, which then can be used as transfer vessels by use of specially designed dollys. Another good feature is, that considering the size of the batch it can handle, the power required is within very reasonable limits.

This machine, like most equipment, naturally has its limitations. Its design is such that it does not lend itself to mixing tough or doughy mixtures when working at full capacity.

Another type of mixer, which has found wide acceptance in preparing tablet granulations, is the dough mixer or kneading type.

These machines were designed for a wide range of applications, such as kneading bread dough, rubber cements, wax compounds, paint bases and pigments, and even chewing gum.

They are available in a wide range of sizes from 5

(Continued on page 458)

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ADVANCING THERAPY

Aureomycin Ointment

Benefits resulting from the use of aureomycin ointment in dermatology have been described by L. Hollander and S. M. Hardy (*Am. Pract. & Digest of Treatment* 1:54, Jan. 1950). They employed a 3 per cent aureomycin ointment made according to the following formula:

Aureomycin hydrochloride (30 mg./Gm.	**3 per cent**
Lanolin	**10 " "**
Mineral oil	**25 " "**
White petrolatum	**62 " "**

The pH of this ointment was approximately 2.5. Exhaustive laboratory tests showed that it remained stable, without refrigeration; no loss of potency of the aureomycin occurred during the test period of several months. Agar plate culture diffusion tests demonstrated that the aureomycin was readily released from the ointment base and diffused without difficulty on the surrounding medium.

Hollander and Hardy have used this ointment for treating 136 patients presenting various skin diseases. In 57 of these patients aureomycin ointment was used as a surgical dressing, and in 79 as a topical therapeutic agent. As a surgical dressing aureomycin ointment was highly satisfactory in all 57 cases. Wound healing occurred rapidly and the resultant scars were excellent. As a therapeutic agent aureomycin ointment gave excellent results in 60 of 79 unselected and variously affected patients. Particular attention is called to the benefits which accrued following its use in the following types of cases: leg ulcers, vesiculo-pustular dermatitis of the hands, pyoderma, necrosis of the skin, pustular psoriasis, and cheilitis exfoliativa.

Of the 19 failures, most occurred in patients in whom there was expectation of benefit. The largest single group not benefited was composed of eight patients who had atopic dermatitis. Sensitivity to aureomycin ointment occurred in ten patients. It is emphasized, however, that they were dealing with a group of patients who are normally highly sensitive, and in some in whom sensitivity to other drugs was previously noted.

"Dramamine" for Radiation Sickness

J. W. Buler, J. H. Tillisch and W. C. Popp (*Proc. Staff Meet. Mayo Clinic* 24:477, 1949) treated 82 patients with radiation sickness as a complicating factor during irradiation treatment for malignant conditions, by oral administration of dimenhydrinate, which is available as "Dramamine." Maximal effectiveness was obtained when 100 mg. of dimenhydrinate was given thirty to sixty minutes before irradiation treatment and the dose was repeated one and one-half hours after treatment and again in three hours, making a total of 300 mg. of the drug. Some patients required a total dose of only 200 mg., others needed 400 mg. There was cessation of vomiting, decided relief of nausea and of prostration in 21 patients. Vomiting has been eliminated but occasional nausea persisted in 44 patients. Symptoms were reduced but nausea and vomiting were present in sufficient degree to produce mild discomfort in 4 patients. Only slight or no relief was obtained in 13 patients. The 23 control patients showed a significantly lower percentage of relief of symptoms than did the group receiving dimenhydrinate. Drowsiness was an objectionable feature in 15 patients and "bad taste" in 8 patients treated with dimenhydrinate. In 4 of the patients with poor results there was a failure to retain and absorb the tablets because of intervening vomiting. These workers feel that dimenhydrinate is an inexpensive drug which can be safely used both as a therapeutic and a prophylactic agent in the treatment of radiation sickness.

Ointments for Impetigo

The treatment of impetigo contagiosa, says J. L. Miller (*Postgrad. Med.* 6:318, 1949) has been rendered more effective by the introduction of a number of new agents. These include the sulfonamides, penicillin, bacitracin, and dihydrostreptomycin in suitable ointment bases. It has been found that the sulfa drugs may cause severe reactions and their use is not advised. In general, the use of penicillin ointment in impetigo for five to six days seems justified, but Miller feels that preference should be given to bacitracin or dihydrostreptomycin ointment.

Bacitracin, in a concentration of 500 units per gram, has proved to be a valuable agent. Freshly prepared ointments should be used and it is felt that bacitracin ointment is worthy of trial in all cases of impetigo. Dihydrostreptomycin, 5 mg. per gram in a suitable ointment base, has proved to be an effective agent. Although drug fastness developed in less than two weeks with many organisms, the time of clearance in impetigo is usually so short that this factor need not be considered.

Studies have shown that oil-in-water and greaseless bases release the various agents much more effectively than do bases such as petrolatum. A suitable greaseless base consists of:

"Carbowax 1540"	**36.00 Gm.**
"Carbowax 4000"	**18.00 Gm.**
Polyethylene glycol 200	**46.00 Gm.**

An oil-in-water emulsion which forms a suitable ointment consists of:

Cetyl alcohol	**8.00 Gm.**
White petrolatum	**20.00 Gm.**
Liquid petrolatum, light	**18.00 Gm.**
Propyl parahydroxybenzoate	**0.02 Gm.**
Distilled water, to make	**100.00 Gm.**

A base which is hardly noticeable on the face has the following formula:

Cetyl alcohol	**21.00 Gm.**
Glycerine	**21.00 Gm.**
Sodium lauryl sulfate	**2.00 Gm.**
Propyl parahydroxybenzoate	**0.02 Gm.**
Distilled water, to make	**100.00 Gm.**

New Preparation for Migraine

In their report in the *New England J. Med.* 241:876, 1949) S. G. Cohen and L. H. Criep state that a series of 50 patients with chronic vascular headache were given a therapeutic trial with "Cafergone," a new preparation containing a combination of ergotamine tartrate and caffeine. The date presented suggest that the synergistic action of caffeine when added to ergo-

tamine tartrate is more effective in some patients with migraine than ergotamine alone, when given orally, and is occasionally as effective as ergotamine tartrate when administered hypodermically. The indications and contraindications for its use and the side actions produced are essentially those of ergotamine tartrate.

Vitamin A for Deafness and Tinnitis

J. R. Anderson, L. W. Alexander and H. J. Zoller (*Eye, Ear, Nose & Throat Mo.* 29:63, 1950) report that 15 of 30 patients with varying degrees of deafness and some with tinnitis showed definite subjective and objective improvement at the end of six weeks of intramuscular administration of vitamin A. Used in cases that had proved resistant to other forms of treatment, the vitamin, in doses of 50,000 units in olive oil and terpins, was injected intramuscularly twice a week for six weeks. Those who showed improvement were given longer periods of treatment.

In view of their results, these investigators concluded that parenteral vitamin A therapy in massive doses is a valuable therapeutic agent in the treatment of deafness and tinnitus which do not respond to the ear, nose, and throat treatment. Because of its simplicity of administration each person with a hearing impairment or tinnitus should be given the benefit of a trial period with this preparation.

Reduction of Dental Caries

According to the findings of L. S. Fosdick (*J. Am. Dent. Assoc.* 40:133, 1950), dental caries can be considerably reduced by brushing the teeth immediately after eating. These interesting and indicative results followed observations on 946 persons. The 523 persons in the experimental group were each told to brush their teeth within 10 minutes after eating food or sweets, and when brushing was impossible to rinse the mouth thoroughly with water. They were also instructed to use an accepted method of brushing and to rinse the dentifrice from the mouth with water immediately after brushing. Examination of the teeth of this group, and of the 423 who followed their usual dental hygiene methods and served as controls, was done by means of mouth mirrors, explorers, dental floss and air syringe. X-rays were taken of all teeth. These examinations were repeated at the end of the first and second years during which the experiment ran.

The results bear out and materially strengthen the generally accepted theory of the tooth decay process, Fosdick points out. This is that decay is started by acid decalcifying the enamel surface under an organic coating or plaque. The acids come from fermentable sugars by the action of enzymes.

Testosterone for Migraine in Women

In the *Journal of the Michigan State Medical Society* (48:1025, 1949) R. C. Moehlig and R. A. Gerisch report that treatment of migraine in 35 adult women with methyl testosterone resulted in relief in 31 patients (88.5 percent). The hormone was given in daily doses of 20 mg. for four to six weeks, after which the dose was reduced to 10 mg. daily. Experience showed that if relief was not experienced within six weeks, further treatment was of no avail. One patient continued to take the maintenance dose for two and one-half years. Her hair became darker and curly but no hirsutism or voice change was observed. The patients relieved from migraine experienced a feeling of well-being, increased ambition and muscular strength, and improved memory. No patient knew what drug was being used. Ten patients had no recurrence; mild recurrences in other patients were relieved by resumption of therapy. Undersirable effects were avoided by smaller dosage or interruption of treatment. The workers stress that the hormone should be used with caution in patients with goiter or diabetes.

Combined Treatment for Vomiting of Pregnancy

Among the most annoying complications of pregnancy are nausea and vomiting. C. W. Dorsey (*Am. J. Obst. & Gynec.* 58:1073, 1949) obtained good results in the treatment of nausea, vomiting or both through the combined use of pyridoxine and suprarenal cortex. In a trial in a series of 62 cases presenting these symptoms there were 56 complete cures, with such marked improvement in two and possibly three others that they may also be reasonably considered as cures, making a total of 58 or 59, with a percentage cure of 93.5 per cent or 95. 1 per cent. In all cases uncomplicated by coexisting systemic disease or other complication of pregnancy, cure was obtained with not more than five injections. The treatment consisted of the intramuscular injection of 25 mg. of pyridoxine combined with 0.5 c.c. of suprarenal cortex or adrenal cortex extract. The patient was given two injections at an approximate twenty-four hour interval, regardless of the response to the first injection. Further injections were given as required, the patient being instructed to return at the first reappearance of nausea, and not to delay until vomiting occurred. If there was no improvement following the first two administrations, experience proved that further similar treatments were, in most cases, unsuccessful.

New Treatment of Poliomyelitis

In his report in the *Archives of Pediatrics* (66:443, 1949), S. Stone states that pyridoxine and thiamine hydrochloride were administered intraspinally to 38 patients with moderate to advanced muscle paralysis in the acute and subacute stages of anterior poliomyelitis. Twenty of the more severely affected patients also received two or more artificial fever treatments in combination with the subarachnoid vitamin therapy. All patients also received oral mixed vitamins, including 50-100 mg. of mixed tocopherols daily in adults and wheat germ oil, 1-4 cc, daily, in children.

Pyridoxine in doses of 20-35 mg. in adults and 5-10 mg. in children together with 5-10 mg. of thiamine for adults and 2-5 mg. in children, when diluted with spinal fluid, can be injected with safety into the spinal canal without producing any untoward reactions. Its administration resulted in appreciable gain in muscle power in nearly all cases, but was most effective in cases with predominantly neuritic symptoms, and cases with pronounced subjective weakness and residual fair to good muscle strength. In the less severely involved cases intraspinal therapy alone was sufficient to bring return of normal function in 16 of the 18 cases treated.

The combined intraspinal vitamin therapy and artificial fever appeared to shorten appreciably the painful phase of the disease in the more severely paralyzed cases, hastened restoration of normal strength in weakened muscles, and thus effected reduction of hospitalization time and treatment costs. Intraspinal therapy alone, however, could be used effectively with other forms of treatment, such as hot fomentations, inductothermy heat, or immersion in a warm pool in cases with severe muscle spasm and pain, if facilities for fever therapy are unavailable. In Stone's opinion the results so far would indicate that it is the most promising method of treatment in poliomyelitis after paralysis had set in.

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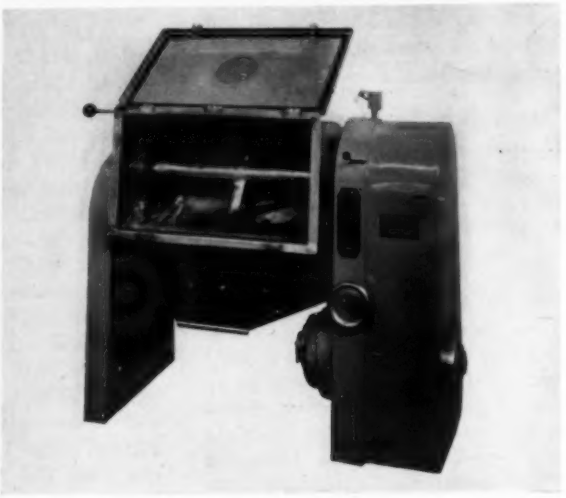
Manufacture of Tablets

(Continued from page 455)

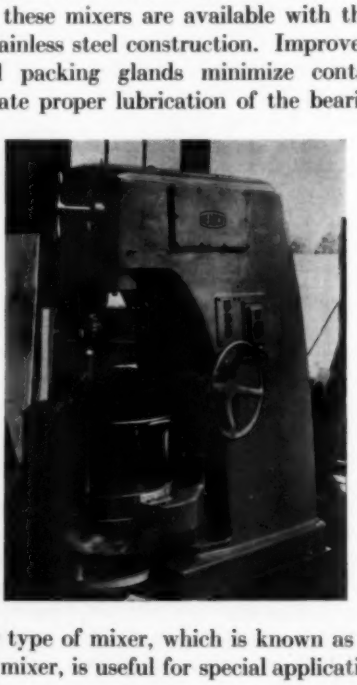
to 300 gallon capacities and even larger, depending on the application. Likewise many types of agitators or



blades are also available. The double sigma type blade is generally found to be most satisfactory for preparing tablet masses and granulations. This type of machine can also be used for mixing the ingredients in the dry state.

After the granulating or massing process is completed they can be rapidly discharged by means of mechanical tilting mechanism. On the smaller models they are tilted by hand.

This type of mixer requires more power to operate than a pony mixer, but it has the advantage of greater capacity and will handle tough materials, with which the tablet maker is sometimes confronted, i. e. extracts. Today all these mixers are available with the contact parts of stainless steel construction. Improved stuffing boxes and packing glands minimize contamination and facilitate proper lubrication of the bearings.



Another type of mixer, which is known as a vertical bowl type mixer, is useful for special applications where

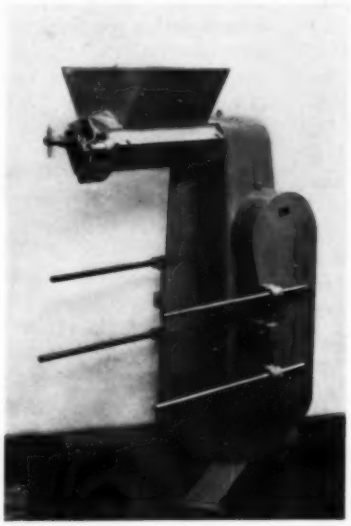
size of the batch is not too large and special mixing technique is required.

The agitator is one piece construction and while revolving the spindle revolves around an eccentric which produces a very thorough mixing action in a very short time.

Granulators. Granules are produced by forcing the damp mass through screens of various sizes. Usually coarse screens around #6 or #8 mesh are used, depending on the characteristics of the mass. After drying the granulation is reduced to proper size by using finer screens. The final granulation size being governed by the diameter of the tablets.

There are three distinct types of equipment for performing this opertion.

1. *Oscillating Granulator.* This machine operates on



the same principle that is produced by forcing materials through a hand screen by means of a wooden block, but the aching muscles are eliminated.

Essentially it consists of a rotor which oscillates through 180°, rubbing against a wire screen and forcing the material through the openings. Very little heat is generated, due to relatively low speed of the rotor and small contact areas. Mesh of screen and diameter of wire determines size of granules produced.

Machine is available in both cast iron and stainless construction. Capacity is quite adequate for both small and medium scale production. Interchange of screens is accomplished very easily, the only adjustment necessary is for screen tension.

An oscillating granulator can also be used for breaking down slugs into final granulation, as described under Double Compression, Article 1.

Comminuting Machine. This machine works on principle of a hammer mill except that a wide range of cutters or knives are available for a wide range of applications.

Basically, the machine consists of a comminuting or grinding chamber. Inside is a rotor to which swinging

(*Continued on page 468*)

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PERFUMER'S SHELF

Antibacterial Activity of Essential Oils

A method for comparing the antibacterial activity of essential oils and other water-insoluble compounds has been developed and tested by Sister M. Petronella Schroeder and Sister Alma Marie Messing (*Bull. Nat. Formulary Comm.* 17:213, 1949) . They found that an extension of the filter-paper-disc method to the testing of water-insoluble compounds dissolved in a single solvent, provides a rapid and simple procedure for the determination of the antibacterial action of such compounds against a number of different bacteria. A comparison of the antibacterial activity of different substances is possible on the basis of dilutions producing zones of growth inhibition of approximately the same size. In their studies ether, alcohol and acetone each were used as solvents for cinnamon oil, hydrocinnamaldehyde, cinnamaldehyde, cinnamic acid, benzaldehyde, pine oil and Australian ti tree oil against a spectrum of 14 representative micro-organisms. It was found that there is no appreciable difference between the action of the test compounds in the three solvents. Hence results obtained with alcohol as the solvent are presented.

It was observed that, of the three essential oils tested, cinnamon oil (cassia oil) produced zones of significant inhibition with the highest dilutions at the end of 24 hours against 11 of the 14 test organisms, although the action at the end of 72 hours at the high level of 1:100 dilution indicates a lower level of bacteriostasis. At a 1:40 dilution it inhibited 11 of the 14 test organisms. The stronger action of the cinnamon oil (1:40) against the colon-typhoid-dysentery-para dysentery groups as compared with its bacteriostatic effect of the pyogenic bacteria and the spore forming *Bacillus subtilis* suggest a greater specificity for the former organism. Of the pine and Australian ti tree oils, the pine was more effective at the 1:4 dilution than the ti tree oil at the same concentration, the action of the pine oil being bacteriostatic.

Comparison of the antibacterial effectiveness of the water-insoluble pure compounds related to cinnamon oil reveals that: cinnamaldehyde comprising 70 to 85 per cent of cinnamon oil was effective in a dilution of 1:40 against all of the organisms tested except *Bacillus subtilis* and *Pseudomonas aeruginosa*; hydrocinnamaldehyde, the reduced form of cinnamaldehyde, at a dilution of 1:40 was effective against all of the organisms including the spore-forming *Bacillus subtilis* reduction of the double bond of cinnamaldehyde having had little effect on its activity. Cinnamic acid formed by oxidation of the aldehyde group of cinnamaldehyde, and also present in the essential oil, had an antibacterial activity of a low order at a dilution of 1:20. Benzaldehyde, lacking the 2-carbon chain present in the cinnamic and hydrocinnamic aldehydes, was bacteriostatic only in dilutions of both 1:4 and 1:2. Acetaldehyde, which may be regarded as a fragment of the cinnamaldehyde and hydrocinnaldehyde molecules apparently had no activity against the test organisms in dilutions of 1:10, 1:20 and 1:40.

Caustic Fusion of Vanillin

The utility of esters of vanillic acid as nontoxic food preservatives, antimicrobic agents and ultraviolet absorbing agents led to a great demand for vanillic acid in the form of its esters by various food, cosmetic, pharmaceutical, medical, and chemical industries, as well as scientific laboratories. To meet this demand, pilot plant production was necessary. In their report in *Industrial and Engineering Chemistry* (42:376, 1950) J. A. Pearl and D. L. Beyer give the results of several studies on the reaction between vanillin and caustic alkali, the data of which were necessary for the design and operation of a vanillic acid pilot plant.

In their investigations certain variables in the reaction of vanillin with fused caustic alkali to yield either vanillic (4-hydroxy-3-methoxy-benzoic) acid or protocatechuic (3, 4-dihydroxybenzoic) acid have been studied. Mixtures of potassium and sodium hydroxide containing between 20 and 60 per cent sodium hydroxide proved to be the most suitable for the oxidation reaction. As the percentage of sodium hydroxide increased, the resulting acid became progressively yellower. For the preparation of protocatechuic acid, any mixture of caustic alkalies may be employed, whereas, for the preparation of vanillic acid, the necessity for higher temperatures and/or longer reaction times with high sodium hydroxide ratios invariably results in demethylation and the formation of some protocatechuic acid. Time as well as temperature has been found to play a role in this demethylation reaction. Alkali-vanillin molecular ratios of 4 to 1 and 6 to 1 are necessary for obtaining high yields of vanillic acid and protocatechuic acid, respectively.

Castorium and Ambergris

In a report on some mammalian secretions and excretions, E. Lederer (*J. Chem. Soc.* through *Manuf. Chem.* 21:70, 1950) provides some interesting data on castorium and ambergris. He notes that castorium has been found to contain more than 40 compounds, including alcohols, phenols, aldehydes, ketones, acids, esters and amines, some of which were new or not previously found in natural materials; others await identification. Those identified included mannitol; gentisic acid; betuligenol (1-*p*-hydroxyphenyl-butan-3-ol); 2: 4′-dihydroxydiphenylmethane, two pigments which were 2-pyrone derivatives allied to ellagic acid, ionone derivatives and the "animal alkaloid," castoramine. The presence of benzyl alcohol, borneol, *p*-ethyl-phenol, acetophenone and benzoic and salicylic acids was confirmed. It is surprising to find so many unusual, and mostly aromatic, compounds in an animal gland, and Lederer suggests that these may be formed from the beaver's food, the buds and bark of trees, which abound in such materials. Instead of excreting these materials in the urine, after conjugation, as is normal in other vertebrates, the beaver apparently deposits them in an unconjugated form in its scent gland.

In the case of ambergris, Lederer deals with the hydrocarbon pristane, $C_{18}H_{38}$ which is assumed to possess a branched chain structure, the coprosterols, ambraporphyrin, and ambrein, including the evidence for the structure of ambrein now accepted. It is suggested that the persistence

of the odor of ambergris may be due to its continuous auto-oxidation to yield volatile odorous substances. This auto-oxidation may be catalyzed by the copper present in ambergris and presumably derived from hemocyanin in the blood of the cephalopods ingested in the whale's food.

Oil of Ocimum Kilimadjarum

In investigations made by J. Baudrenghien and J. Jadot (*Bull. soc. roy. sci. Liege* 18:46, 1949) the essential oil from *Ocimum kilimadjarum* from the Belgian Congo was separated into three fractions, boiling at 0 to 65°, 65° to 100°, and 100° to 130°C. In the first fraction, cineol was identified; in the second camphor and what was believed to be coriandrol; and in the third chavibetol.

Jasmin Odors

In modern perfumery, say S. Gottfried and L. Baxendale in the January, 1950 issue of *Chemical Products*, the jasmin-like odors have acquired a very important role, being floral, captivating, tenacious, warm, pleasant and fixative. They act as blenders and sweeteners, giving bloom to cananga and ylang ylang and are indispensable in any good floral note. They point out that the suave note of the jasmin odor is to be found in such botanical species as:

Magnoleaceae (Michelia Champaca—Magnolia).
Saxifragaceae (Philadelphus—Mock Orange).
Anonaceae (Diervilla—Bush Honeysuckle).
Verbenaceae (Clerodendron).
Rubiaceae (Bouvardia, Gardenia).
Solanaceae (Nicotana—Tobacco Plant).
Bignoniaceae (Catalpa—Indian Bean Tree)
Calycanthaceae (Chimonanthus—Chinese Winter Sweet)

Earlier studies had indicated that the jasmin oil extracted from the pomade by means of acetone had the following composition:—

Benzyl acetate	65.0 per cent
Linalyl acetate	7.5 " "
Linalol	15.5 " "
Benzoyl alcohol	6.0 " "
Indol	2.5 " "
Jasmone	3.0 " "
Methyl anthranilate	0.5 " "

Traces of *p*-cresol and geraniol were stated to be also probably present.

It is advisable to keep the indol content below 0.10-0.20 per cent as in larger quantities it gives a too overpowering note which creates a similar form of nasal paralysis to that of the ionones. It quickly saturates the lipoids of the nasal mucous and inhibits the olfactive nerves. It also kills all other odors.

It is noted that if the flowers of jasmin are kept, heaped together, for some time the formation of Indol is encouraged. Jasmin prepared by the volatile solvent method and the cohabates of flowers contain the smallest amounts of indol.

It is said that the dominating odor in jasmin is the jasmone of Hesse, associated often with benzyl alcohol, benzyl acetate, linlayl acetate, linalol, nerol, farnesol, geraniol, rhodinyl formiate, rhodinyl butyrate, methyl-*p*-Cresol, Methyl anthranilate, indol decyclic aldehyde (C_{10}), and others.

Myrtle Oil From Dalmatia

B. Akacic and B. Hadzija (*Farm. Glasnik* 5:129, 1949 through *Chem. Abstr.* 44:284, 1950) determined the physical and chemical properties of myrtle oil which was obtained from the native, Dalmatian variety of *Myrtus communis*. The following values were obtained:

Specific gravity	0.9178
Optical rotation	9° 13′
Index of refraction	1.468
Acid value	1.92
Ester value	38.00
Acetyl value	99.48

The myrtle oil was found to be insoluble in 70 per cent alcohol. The content of alcohols, esters, aldehydes and ketones was as follows: bound alcohol 10.45, free alcohol 18.26, total alcohol 28.71, esters 13.3 per cent, aldehydes and ketones 2 per cent. Particular attention was given to the fraction boiling at 200 to 204° C., in view of the possible thujone content. This fraction was investigated by tribromine and semicarbazide hydrochloride methods. The results were negative in both cases.

Essential Oils and Related Products in B. P. C. 1949

In their second annual review of analytical procedures for essential oils and related products, E. Guenther and E. E. Langernau (*Anal. Chem* 22:210, 1950) point out that in general, no basically new analytical procedures have been reported for essential oils and related products. Spectral absorption techniques have long been in use in research laboratories for identification of essential oil constituents and for elucidation of structure. Recently such methods have been applied commercially to the analytical control and evaluation of several products in this industry, notably β-ionone. Further developments along this line may be expected in the future.

In their consideration of new official compendia, they state that the British Pharmaceutical Codex 1949 replaced the 1934 edition, following closely the publication of the British Pharmacopoeia 1948. This latest revision of the Codex includes supplementary informative data for the following items which are official in the British Pharmacopoeia 1948:

	Page
Essential oils	
Purified volatile oil of bitter almonds (free from prussic acid)	565
Oil of anise	567
Oil of cajuput	573
Oil of caraway	575
Oil of chenopodium	579
Oil of cinnamon	580
Oil of clove	575
Oil of coriander	582
Oil of dill	566
Oil of eucalyptus	585
Oil of lavender	593
Oil of lemon	595
Oil of nutmeg	602
Oil of peppermint	598
Oil of rosemary	611
Oil of turpentine	618
Synthetics and isolates	
Benzyl alcohol	62
Benzyl benzoate	146
Camphor	197
Ethyl oleate	55
Eucalyptol	332
Menthol (*l*-or *dl*-)	517
Methyl salicylate	529
Terpineol	895
Thymol	914
Balsams, etc.	
Balsam of Peru	128
Balsam of Tolu	129
Benzoin	144
Oil of cade	572
Myrrh	544
Purified storax	860

In addition, monographs (with specifications and standards) are presented for 28 essential oils and for 11 other items of interest to the essential oil trade:

	Page
Essential oils	
Oil of bay	601
Oil of bergamot	570
Oil of sweet birch	571
Oil of camphor, rectified	573
Oil of cardamom	574
Oil of cassia	576
Oil of cedarwood	577
Oil of chamomile	568
Oil of citronella	581
Oil of cubeb	584
Oil of fennel	586
Oil of Siberian fir	564
Oil of geranium	586
Oil of juniper	592
Oil of lemongrass	588
Oil of *Melaleuca* (tea tree)	597
Oil of mustard, volatile	616
Oil of neroli	603
Oil of orange	569
Oil of pimento	605
Oil of pine, steam distilled	606
Oil of *Pinus pumilio*	606
Oil of rose	610
Oil of sandalwood	612
Oil of sandalwood, Australian	613
Oil of sassafras	614
Oil of spike lavender	594
Oil of thyme (origanum)	621
Synthetics and isolates	
Dibutyl phthalate	295
Diethyl phthalate	56
Dimethyl phthalate	312
Eugenol	334
Safrole	778
Saponin	787
Terpin hydrate	896
Vanillin	941
Balsams, etc.	
Oil of amber	617
Oil of birch tar	612
Copaiba	270

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ABREAST OF THE MARKETS

ESSENTIAL OILS VERY ACTIVE — EVENTUAL INTERFERENCE IN CHINESE EXPORTS HINTED; GLYCERINE RETURNING TO NORMAL

Essential oils continued to be the most active feature of the market during March, with scattered price changes occurring in the botanical field and in certain chemicals. Varied sources in the Trade have commented on the recent Soviet move in the hog-bristle market, as reported by the United States Commerce Department, in which Russia sold $865,000 worth of bristles to American brush manufacturers during the first six weeks of 1950. In what may prove to be a prophetic economic sign originating behind the Iron Curtain. This development might have gone unnoticed except for the fact that the bristle market has been up until this time largely under the jurisdiction of Chinese exporters. The figure of $865,000 represents thirty times the normal export of this product from Russia to the United States. During the same period of time, the Commerce Department noted that bristle exports directly from China to the United States dropped from a monthly average of $1,842,000 in 1948 to an average of $1,126,430 in the last four months of 1949, and that the first month in 1950 showed a decrease of 38 per cent below the same period in 1949.

Declaring that "this is apparently a Russian plot to steal American dollars from China by first buying up Chinese materials and then reselling them to America," the Department of Commerce pointed out there was no indication of the Chinese Communists having placed an embargo on bristles to America, although there was a steep decline in exports from Tientsin with a concomitant increase in exports directly from Soviet Russia.

In both the botanical and essential oil fields varying opinions were expressed both for and against the possibility of such a turn of events taking place in these fields where Chinese commodities are concerned.

The majority of sources, however, indicated that such a development was quite plausible and in some instances, imminent, as in the case of cantharides. Chinese cantharides is currently selling from $1.10 to $1.20, while the Russian variety is quoted in the range from $3.75 to $4.25. a situation which cannot last interminably. Spokesmen in the botanical field express the belief that when the appropriate time arrives, Soviet authorities will see that the less expensive Chinese commodity will be sold only through Russian channels, or, just as likely, not sold at all.

In the same category is anise seed star which has become exceedingly scarce and has advanced 2c from the range of 19c to 21c to that of 21c to 23c. This item, in addition to ephedra vulgaris, rhubarb root, cassia oil, and others originating in that area may possibly be similarly affected in future months.

Geranium Oil Levels Off

Bourbon geranium remained in the range from $18.50 to $20.00 during March, while the African oil advanced $2.00, to be quoted from $17.50 to $19.00. The Bourbon variety has exhibited increases during recent months, especially in February, just after a cyclone hit the Reunion Islands. According to *The Giraudanian*, March 1950, the initial reports of severe damage wrought the island by the storm, have been revised in a more conservative vein. "It is now believed," the publication reports, "that the crops did not suffer heavily. Oil of geranium Bourbon continues to be rather high, but has declined somewhat, whereas Vetivert Bourbon has risen slightly."

Citrus Oils Continue Upward

Presumably because the warmer season is at hand, and perhaps because of high production costs, lemon and lime oils advanced during March, with prospects of further advances in the immediate future. Italian lemon oil went up from $2.85 on the inside to $2.95, while distilled lime oil increased 25c in price from $6.25 to $6.50. Expressed lime oil jumped $1.00 during March from $6.50 to $7.50.

• Prices quoted in this section were current on the first of this month.

Pine Needle Oil Down

Pine needle oil fell off $1.25 last month from $4.75 to $3.50, as Russia let down the barriers and increased exports to this country. Concensus in the trade is that Soviet producers had glutted their market by holding back exports of this item in order to work the price up. Following this temporary release of material it is expected the procedure will be repeated.

Peppermint Oil Demand Strong

Natural peppermint oil advanced 25c from $6.25 to $6.50 on the inside price during March, while the redistilled oil increased from $6.75 to $7.25, or 50c. Some sources attribute this advance to a small supply on hand, while others indicate that Germany and other European countries are buying large quantities of the material.

Essential Oils, Reunion Island

Exports of essential oils from Reunion Island during the fourth quarter of 1949 consisted of the following two types (in net kilograms): geranium. 7,990; and vetivert, 8,693.2.

Dandelion Root Supply Is Low

Dandelion root advanced 2c last month, chiefly because there is a very small supply coming from Central Europe. The current price range extends from 40c to 45c.

Glycerine Becoming More Active

Glycerine demand is slowly returning to normal, following the lagging period of January and February caused by the coal and steel strikes, and is expected to be normal by the end of this month. The latest figures released by the Department of Commerce indicate that consumption of glycerine in the United States amounted to 19 million pounds, in both December and January. Production of the natural and synthetic glycerine was two million pounds less than consumption in December (17 million

(Continued on page 465)

END OF COD LIVER OIL SEASON AWAITED; GERMANY USING OWN FLEET OF SHIPS; ALCOHOL PRICES INCREASED 4½c

The cod liver oil season has drawn to a close with the advent of Spring and warmer weather. No price change has occurred, although several factors are present which may cause either an advance or a decline from the current $1.40 to $1.50 gallon price, depending on the outcome.

For the first time since World War II, Germany has built up her own fleet of fishing boats and is producing her own cod liver oil derived from fish caught by her own fleet. If all goes well during the present fishing season, Germany may become self sufficient and no longer have need of purchasing Norwegian oil. Should this possibility occur, Norwegian stocks on hand and available for export to countries excluding Germany would be increased, and the price, perhaps, reduced. If, on the other hand, the balance of the fishing season in Norway should prove to yield a poor supply of oil, export stocks would necessarily be proportionately less, with the result that the price would remain static, or advance.

Production of cod liver oil in Norway through March 8, 1950, amounted to 21,622 hectreliters, as compared with 16,016 hectreliters up to March 9, 1949, and 21,000 hectreliters through March 10, 1948. Judging from last year's total production of oil (54,700 hectreliters as of May 11), the most fruitful part of the fishing season may prove to be between March and May this year. Last year only 16,016 hectreliters of oil were produced before March, and more than twice that figure, or 38,684 hectreliters were produced during the two-month period from March 9 through May 11. Owing to the vagaries of the sea, there is no way of forecasting this year's total oil production. If it should be small, stocks will be light and the price higher; if total production of cod liver oil in 1950 is large, then the price of the oil may either remain stable or decline. There is approximately one month remaining to the fishing season. More complete figures will be available later.

Alcohol Advances

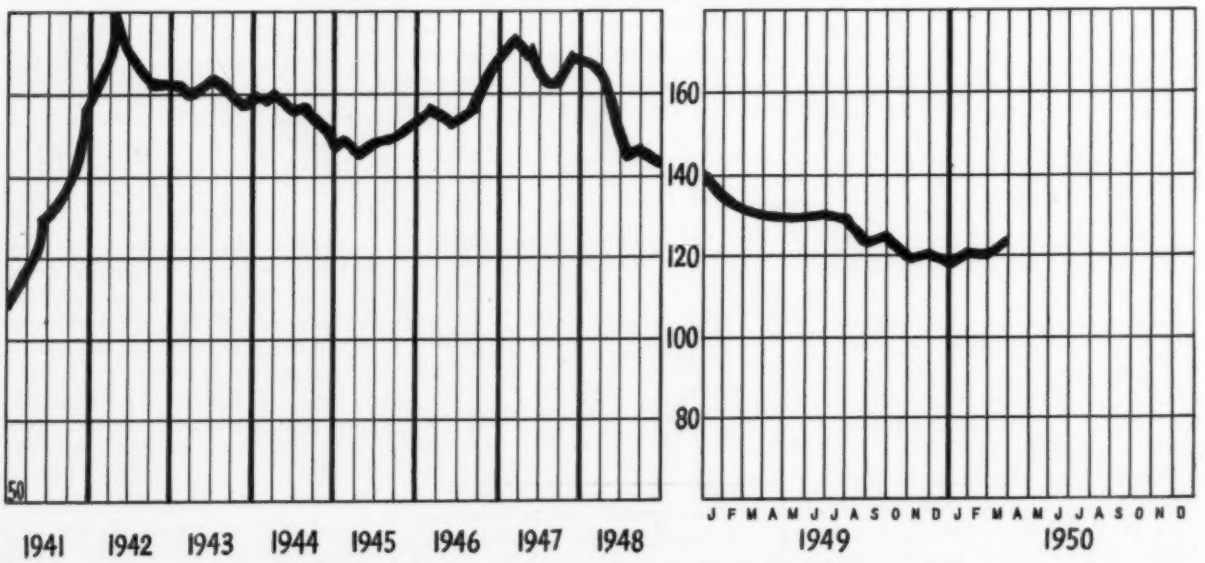
Alcohol prices were advanced during March from 4½c to 5c, one reason being the increased cost of steel in the manufacture of drums, in which the alcohol is shipped. This increased drum expense was in turn brought about by the steel strike which occurred several months ago. Revised prices of alcohols are: denatured No. 1 special 47c to 56c; grain SDA 39B, 93c to $1.02; 39C, 90c to 99c; and No. 40, 89c to 98c. Ethyl alcohol U.S.P. 190 proof tax paid is currently selling in the range from $17.55 to $17.64 per gallon.

Production of ethyl alcohol in industrial plants during January was 25,368,140 proof gallons, while withdrawals amounted to 30,471,189 gallons. Producer stocks at the end of the month were 31,345,990 proof gallons. The principal raw materials used were: total grains 658,141 pounds; molasses 6,761,045 gallons; ethyl sulfate 12,011,657 gallons; and ethylene gas 3,846,877 pounds, according to *Chemicals and Drugs*, March, 1950. The publication further states that "a review of the fourth quarter 1949 operations show that, at the end of the period production, withdrawals and stocks had reached the most realistic relative position in over a year. Stocks had declined steadily from 50 million to 30 million which is roughly equivalent to the monthly production for this period. Withdrawals rose except for the last month when consumers were adjusting their year-end inventories to the usual low side."

Considerable attention was paid to the large stocks of molasses on hand in Cuba during March. Reports were circulating to the effect that the island was facing a serious storage situation in that it had on hand close to 300,000,000 gallons of molasses, plus an overflow from the year 1949. Storage capacity of the island was said to be approximately 200,000,000 gallons.

A spokesman in the trade minimized the molasses problem, however, declaring that Great Britain has been purchasing large quantities of the commodity for alcohol purposes and further stating that molasses has been widely used in the United States for cattle feed. There are a number of factors which may affect the molasses situation in the future, however. The British are preparing to produce alcohol synthetically

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for March advanced from 120.9 to 124.2.

MARCH PRICE CHANGES

UP

Agar agar No. 1 25c
Alcohol, Denatured No. 1 Spec. 4½c
Alcohol, Ethyl U.S.P., 190 pr. 16c
Almond oil, bitter 75c
Anise seed star 2c
Bois de Rose, Brazilian 35
Clove Oil 5c
Dandelion root 2c
Dill oil $1.25
Geranium oil, African $1.50
Hemlock Oil 25c
Lemon oil, Italian 10c
Lime oil, distilled 25c
Lime oil, expressed $1.00
Linaloe Oil, Mexico 50c
Menthol, natural 25c
Peppermint oil, natural 25c
Peppermint oil, redistilled 50c
Sage oil, Spanish $2.00
Wormseed oil 15c

DOWN

Aconite root 5c
Benzoin gum, Sumatra 5c
Carnauba wax 6c
Jalap resin 40c
Montan wax 1c
Pine needle oil $1.25
Spermaceti 3c

and may very well cut down on their molasses purchases when construction of their plants has been completed. If the floor price in grain should fall in the United States, then the grain would very well supplant molasses in cattle feed, a factor which would reduce this country's demand for the item. Lastly, if the Cuban sugar crop holds up and if the new crop in December, 1950 is large, additional storage problems may develop. There does not seem to be any straw in the wind concerning future developments of the molasses situation at the present time.

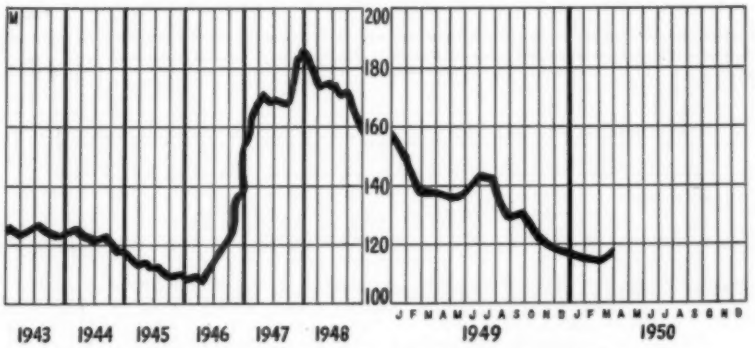
Glycerine More Active

(*Continued from page 463*)

pounds) and 18 million pounds in January, or one million pounds below consumption for the same period.

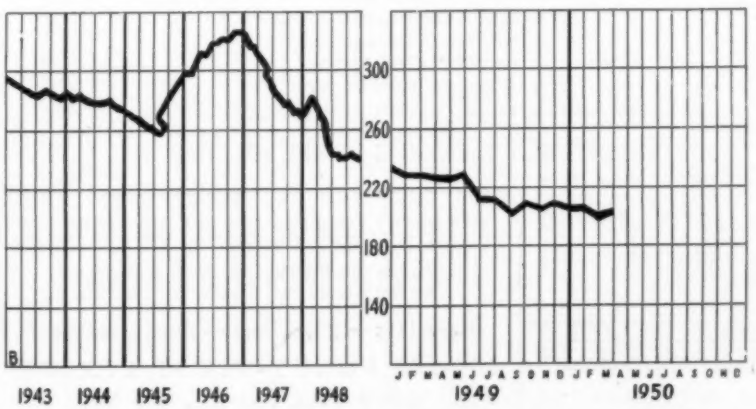
In spite of the fact that more glycerine was used than produced during these months, factory and warehouse stocks nevertheless increased from 48 million pounds at the end of December to 52 million pounds by the end of January. This apparent paradox, according to a spokesman in the trade, may be attributed to the import of large quantities of glycerine during the period.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index advanced from 116.3 to 118.5. Alcohol and menthol went up.

15 Botanicals—Weighted Price Index. 1926 = 100.



The botanicals index advanced from 198.9 to 202.6. Agar was higher.

Theophylline Reduced

Two price cuts in theophylline occurred during the latter part of March, amounting to 50c, because of lower-priced offerings from abroad. A 100 lb. Leverpak drum is selling for $5.50 and a 25 lb. drum, $5.65.

Sulfathiazole Reduced

Sulfathiazole U.S.P. XIII powder and sodium sulfathiazole U.S.P. XIII were reduced 50c a pound in late March. A 100 lb. drum is selling for $3.15 and a 25 lb. fibre drum, for $3.30.

Methyl Salicylate Up 2c

Methyl salicylate U.S.P. XIII advanced 2c a pound in early March, a 500 lb. drum now quoted at 42c; a 50 lb. drum, 47c a pound; and a 25 lb. quantity, at 48c a pound.

Vanilla Beans Unchanged

Although over 300 cases of beans, largely Bourbon, arrived in mid-March, the tight supply situation was not altered, nor were the warehouse supplies increased to any sizable degree. The market trend of vanilla beans continues to strengthen, with signs indicating that it will either remain firm or develop an additional firmness in the immediate future.

Menthol Still Unsettled

Natural menthol declined 5c, from $10.20 to $10.15 during the first part of March and then advanced to $10.40 at the end of the month. It is said that no offerings are being made from Brazil at the present time and that the spot market has become very tight. One source has indicated that a clear picture of the menthol outlook will not crystallize for a month or longer.

Citronella Oil Imports, 1949

During all of 1949 imported oils aggregated 7,828,904 pounds, a fifth more than in 1948, according to a Department of Commerce publication. Of all the essential oils arriving from foreign sources last year, citronella oil accounted for nearly one-fourth the quantity, and equalled 1,831,551 pounds having an import value of $1,881,621. The citronella oil arrived from the following sources: Guatemala, 676,625 pounds valued at $803,128; Honduras, 51,144 pounds, $55,475; Haiti, 3,828 pounds, $3,813; Dominican Republic, 3,190 pounds, $3,289; Leeward and Windward Islands, 832 pounds, $876; Ceylon, 293,244 pounds, $199,093; Indonesia, 165,374 pounds, $159,807; China, 541,476 pounds, $558,261; Taiwan, 85,000 pounds, $84,281; Netherlands, 4,480

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pounds, $3,187; and El Salvador, 6,358 pounds, value $10,411.

Sage Oil Up $2.00

Sage oil advanced $2 during March, from the inside price of $4.50 to the current price of $6.50, a development caused by last year's severe drought in Spain. Present stocks at the origin are reported very low.

Wax Import Figures

In the first three weeks of February about one million pounds of carnauba wax arrived in New York. December imports of 1,966,000 pounds, according to the United States Department of Commerce, brought the total for 1949 to 19,170,000 pounds, 26 per cent above the 15,260,000 pounds received in 1948.

December imports of candelilla wax were 1,856,000 pounds, the highest for any month in two years. Total receipts in 1949 were 6,114,000 pounds, contrasted with 2,593,000 in 1948.

December imports of ouricury wax amounted to 253,000 pounds, which brought the 1949 total to 2,371,000 pounds, a slight reduction from the 2,956,000 pounds received in 1948.

December arrivals of beeswax were 451,000 pounds, while the total for 1949 was 3,910 000 pounds or about 16 per cent below the 4,637,000 pounds received in 1948. In 1949, 56 per cent of arrivals came from countries of the Western Hemisphere and in 1948, 55 per cent. Ethiopia provided the greatest amount (596,000 pounds) in 1949, while Brazil ranked first (903,000 pounds) in 1948.

Exports of Ouricury Wax

Brazil's exports of ouricury wax in the first 9 months of 1949 totaled 975 metric tons, valued at $1.231,500, according to the Brazilian Ministry of Finance. The United States purchased 823 tons ($1,024,200).

Carnauba Wax Mystifying

Varied reports have been received on recent developments in carnauba No. 1 wax, with all of them agreeing in one respect—that with all the confusion stirred up, the price of the wax as shipped from Brazil has fallen below the floor price recognized by the government. During the last part of February the wax was quoted from $1.11 to $1.13, while at the end of March, quotations extended from as low as $1.00 up to $1.05.

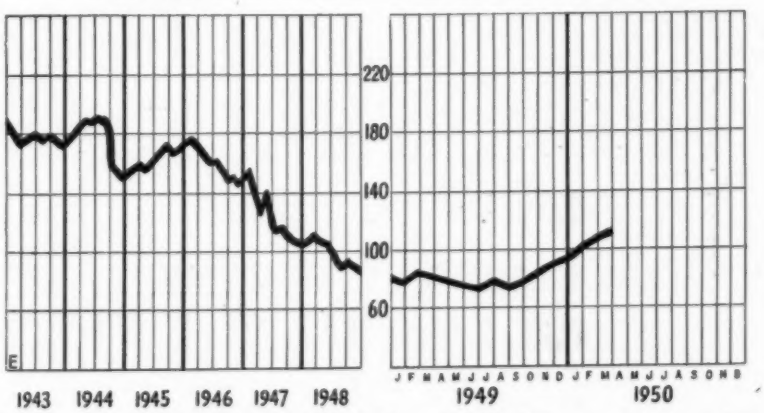
The precipitous decline was said to have occurred when the government added the item to the compensation barter list, enabling Brazilian merchants to exchange merchandise in lieu of buying and selling on a currency basis. By successive deals in barter, according to one spokesman, the value of the wax gradually worked down to the $1.05 level, at which time arrangements were made to sell the wax to the United States.

One source has said that this barter arrangement will be effective where American importers are concerned, through the April shipments, and that the wax will be removed from the barter list in order to preclude any future deals on the reduced price basis. This source has explained that American importers have been exchanging merchandise, such as machinery, through their Brazilian representatives, on a basis equivalent to the 99c f.o.b. price of the wax and then have proceeded to pay the difference between barter price and normal price of $1.09 in cash. If such an arrangement is being made, it would seem that American importers are still paying the full price for the commodity, and that at the same time they are clinching some sales of their own, entirely on a dollar basis. At the same time, Brazilian exporters would seem to be gleaning highly desired dollars.

Other sources display considerable consternation and confusion in respect to Carnauba wax No. 1, however, in declaring that they are in no position to barter and therefore have been importing the wax from Brazil at the reduced sub-floor prices directly. They report the market has softened to such an extent they have become hesitant about registering future orders until the picture has cleared. Some reports declare the government of Brazil has dropped carnauba No. 1 from the barter list, while others issue doubt; some indicate the market will develop a firmer tone shortly, others see no indication in the wind.

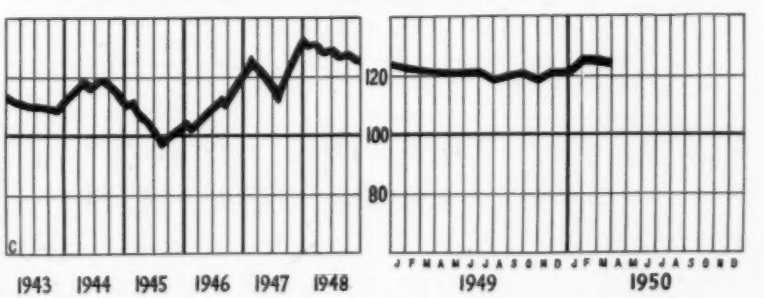
No explanation has been offered as to why the Brazilian government countenanced the sale of carnauba wax to United States importers in the first place, at a figure below the established floor price. All in all the situation in carnauba appears to be muddled and seeped in confusion at the present.

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index advanced from 106.2 to 111.4. Bois de rose, clove, geranium, lemon, lime, and peppermint oils were higher.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index declined slightly from 125.6 to 125.3. Alcohol and menthol were higher; spermaceti was lower.

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Manufacture of Tablets

(*Continued from page 459*)

or fixed knives are attached. In place of screens perforated metal plates are used to size the granulation.

The chamber and rotor are reversible, so that the sharp edges of the knives can be used when a cutting or granulating action is required. When the rotor revolves in opposite direction the flat side of the knives is available for pulverizing. In most tablet operations the rotor with swinging knives is generally the most satisfactory.

The comminutor will handle both wet and dry materials and also does a good job on breaking down slugs and will handle sticky masses which would clog an oscillating granulator.

The cost is approximately double that of an oscillating granulator, but the production in many cases is four to five times greater. Operating speeds of 500 RPM to 5000 RPM are possible through a combination of

step pulleys and V-belts, and changes can easily be accomplished. All contact parts are of stainless steel and are so designed that they can be taken apart very easily for cleaning.

Wet Granulator. This machine works similar to an extrusion press, only instead of a ram it consists of a cylindrical screen in which rotate a series of trowel or wiper blades. These blades force the material through the openings forming granules and in some cases small sphagetti-like kernels as many people call them. Its chief advantage is that it handles gummy or soggy materials and produces practically no fines. Its capacity is dependent on the consistency of the materials and size of screen openings.

Dryers. There is such a wide variety of dryers available that a discussion of the various types, sizes and features would constitute an article in itself. However, since equipment for the drying of tablet granulations must fulfill certain definite requirements my readers are spared the ordeal of a long dissertation.

For the most part pharmaceutical granulations and tablets are made on a batch basis, varying from 50 pounds to 500 pounds or even 1000 pounds in some cases. It is quite evident therefore that the most practical type of dryer is one that can handle a number of small batches of different materials, which can all be dried at the same time without fear of contamination and likewise be adaptable to drying a large batch of possibly several hundred pounds of granulation.

Our choice of dryers, therefore, is more or less confined to a tray type dryer. Essentially this type of dryer consists of a heating chamber for generating hot air, which is then blown into the drying chamber passing over and under the trays containing the granulation. The moisture laden air is then exhausted. Atmospheric dryers of this type can be operated on electricity or steam, in some cases natural or manufactured gas is used.

As the temperature for drying most pharmaceutical granulations falls within a fairly low range of 110° to 150°F, generation of heat does not constitute a very serious problem.

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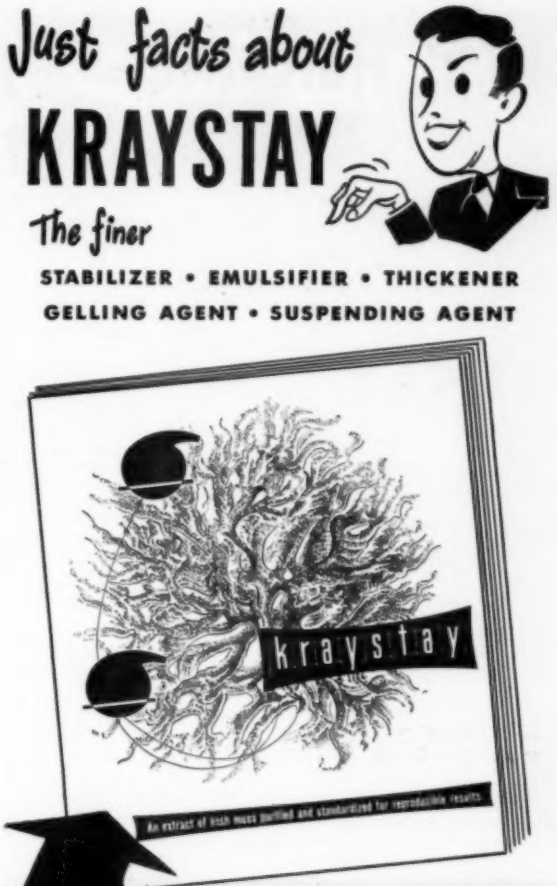

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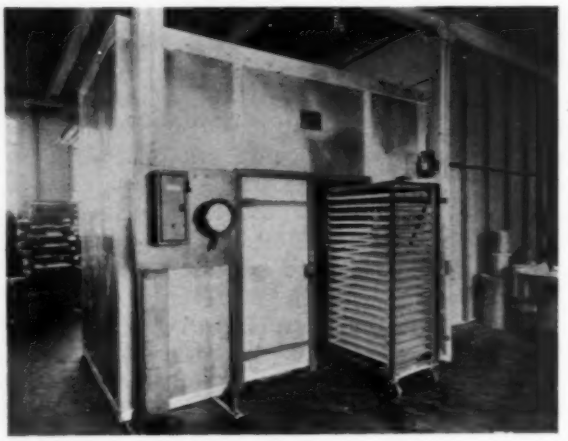
For small plants the single cabinet type of dryer which contains from 16 to 24 trays is generally satisfactory. Roughly speaking the cabinet type dryer has a capacity of approximately 1-¼-1-½ pounds of average granulation per square foot of shelf area. These are general figures based on material being spread to an average of ½" in depth. Drying cycles naturally are dependent on several factors, such as efficiency of heat generation, construction and insulation of cabinet, quantity and velocity of hot air and method of circulation, and last, but not lest, the amount of moisture in the granulation.

Where larger capacity is required the truck-tray type of dryer is more satisfactory.



The principles of operation are the same as the cabinet dryer, except that the component parts are larger, i. e. heating units and fans.

One important advantage of the truck-tray type of dryer is that the trucks are loaded outside the dryer and when pushed in or taken out, the door is opened only for a few seconds, keeping heat losses to a minimum, whereas with the cabinet type the door must, of necessity, be kept open considerably longer while loading and unloading, so that heat losses are greater.

When considering drying equipment quite naturally initial cost is a big item. I know of a number of plants wishing to keep down expenditures who started out with a single cabinet type dryer. As production requirements increased another unit was installed. However, they soon reached a point where it would have been more practical and cheaper in the long run to have installed truck-tray type in the beginning. Overnight drying will increase the capacity provided the dryer is equipped with thermostatic and safety controls.

Therefore, before installing drying equipment both present and future requirements should be considered. The drying cycle will depend on moisture content of material, construction and efficiency of dryer and depth to which the trays are loaded.

A few suggestions as to features to look for in a dryer are—insulation, uniformity of heat and circulation, type and reliability of controls, ease of loading. Excess temperature cut-out switches are provided on

some models, which cut off the current should any of the other controls go haywire.

If the prospective purchaser carefully studies all the above factors he should experience very little trouble in fulfilling his requirements and keeping his initial investment within reasonable limits.

Lubricating Equipment. This particular operation does not require any elaborate equipment. The process is to cover the surface of the granules with a light film of the lubricating material and it is very important that the granules should not be broken down during this operation.

The most practical type of equipment for this purpose are drum roller or drum tumbler, which permit the granules to roll over each other and pick up the lubricant without fracturing the individual granules.

I know quite a few tablet men who use a pony mixer for this operation with satisfactory results. However, you have to be careful not to mix too long, otherwise you will start to produce some powder.

Tablet Machines. Finally, we are able to review equipment which was specifically designed for making pharmaceutical tablets. In fact the wide variety of tablet machines available today used in the chemical, ceramic and powdered metallurgy fields, to mention just a few, are all developments from the original presses designed for production of pharmaceutical tablets.

To the best of my knowledge the earlier models were small hand operated models capable of producing tablets up to ½" in diameter at speeds of 80 to 90 tablets per minute. Production, of course, was dependent on the physical stamina of the man turning the flywheel or crank.

Through the past decade improvements have been made, different types of machines designed always with the accent on production and more production, until today we have high speed rotaries capable of producing 4000 tablets per minute and these figures are taken for granted.

KOMMON/ SCENTS!

The dread Atom Bomb has made at least one contribution to humanity: The "impractical theories" of savants Einstein, Fermi, Urey and Oppenheim have driven the politicians back to school.

•

Harold Stassen, former Governor of Minnesota, for example, is now President of the University of Pennsylvania. This institution has been long the center of academic advances. Coincidentally, it is located in the center of 35 votes in the Electoral College for President of the United States.

•

And General Eisenhower, a politician by declination now calls cadence for Columbia University. Fortunately, his combined salary and Army pension permit us to witness his academic brilliance in arguing against pensions as an evil of "The Welfare State."

•

Most recently, Governor Dewey of New York thrilled audiences at Princeton with lectures on practical politics. His success was not unexpected, considering the wonderful lesson in practical politics he got from a former Harvard man in '48.

•

Although we have made little headway in two-way trade systems, the United States is doing well in academics. The brilliant law school boys en route to careers in Washington now meet the has-beens and never-wuz politicos on their way back.

•

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Tablets are always referred to in terms of weight and tablet machines do produce tablets of a given weight with a surprising degree of accuracy, provided, of course, that the granulation is uniform and properly prepared. However, tablet machines, such as are used in the pharmaceutical industry, actually measure the material volumetrically, hence the necessity of careful preparation of the granulation discussed in the previous article.

There are two types of tablet machines.

1. *Single Punch* which, as the name implies, makes one tablet at a time, producing anywhere from 50 to 100 tablets per minute.
2. *Rotaries* equipped with from 15 to 33 punches and dies which turn out anywhere from 200 to 2000 tablets per minute. These are standard machines, capable of producing most of the standard size pharmaceutical tablets.

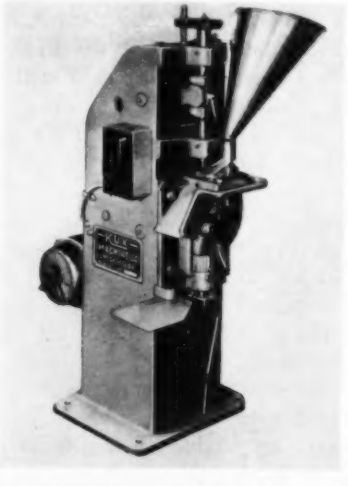
As mentioned previously machines of special design for producing very small tablets can turn out 4000 tablets per minute.

Basically the principles involved are the same. The granulation flows from the hopper into the feed shoe, then into the die where it is compressed between two punches to form the finished tablet.

The principles of the two types of machines are somewhat different, however, and for the benefit of my readers who are not familiar with this subjet, it might be of interest to explain how each type of machine works.

First, let us consider the single punch machine.

Briefly, the operating cycle is as follows:— The lower punch is adjusted to a given depth in the die. After the punch drops down the feed shoe passes over the die cavity and shakes a couple of times to make sure that the cavity receives a full charge of granulation. The feed shoe then moves back out of the way of the descending upper punch and in so doing scrapes off the granulation level with the top of the die. The upper punch then continues downward into the die



cavity compressing the granulation into a tablet. The upper punch is then raised out of the way and at the

same time the lower punch moves upward ejecting the tablet from the die. At this point the feed shoe comes across and it is so timed that at the moment when the tablet is clear of the die the leading edge of the feed shoe kicks off the tablet into the discharge chute and again the cycle is repeated.

There are only four or five adjustments necessary to set up the machine for operating and when these have been made very little attention is necessary other than to check weights of tablets at periodic intervals.

A single punch machine fulfills a definite purpose in the overall scheme. It is excellent for experimental work, as it is possible to operate with a small batch of material.

When special shaped tablets are required the cost of tools can be kept to a very reasonable investment, as usually tools of this type are expensive, whereas for a rotary the cost often runs into several hundred dollars.

Where a number of small runs are to be made a single punch machine is ideal, as it only requires a few minutes to change over the punches and dies, clean the contact parts and set up for the next run.

The main disadvantage of a single punch as compared with a rotary is limited production. Generally speaking a small single rotary has a production of approximately 5-6 times that of a single punch. To offset this advantage, however, a rotary requires longer to set up and tear down. Therefore all these factors must be taken into account before definite decisions are made.

Rotary Machines. A rotary machine is considerably smoother and quieter than a single punch press and operates on a different principle, as follows:- The granulation flows by gravity from the hopper into the feed frame, which consists of several grids. The lower punches pass over a series of cams which raise and lower them at a given point controlling the weight and pressure.

In order to simplify the operating principle of a rotary machine let us follow one pair of punches and die through the complete cycle. As the lower punch travels under the frontsection of the feed frame it is pulled down by the lowering cam to the full operating depth of the die and at the same time the granulation starts to fall into the die cavity, as it travels under the entire length of the feed frame it acquires a full load. The filling operation is completed very thoroughly and uniformly, due to the movement of the material and scraping or directing influence of the grids.

As it reaches the back of the feed frame the lower punch is raised to a predetermined height by means of an adjustable cam, usually called the weight adjuster. The excess material is pushed out of the die and removed by means of a floating scrape off plate.

The lower punch then drops again until it reaches the pressure roll, at which point the upper punch also passes under another roll of same dimension and the granulation is compressed from both top and bottom between the two punches to form the tablet. After passing through the rolls the upper punch is raised by means of a lifting cam and the lower punch starts

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up an inclined plane—called the ejection cam, which raises the punch and ejects the tablet from the die. The end of this stroke conicides with the knock off plate attached to the front o the feed frame and the tablet is directed off the die table to the discharge chute. This completes the cycle. The punch immediately starts downward to receive another charge. When the cycle is multiplied by say 16 punches and dies you can readily see how the production of these relatively small machines is so great.

The production is dependent on the number of dies in the head and speed at which the machine is operated.

The above description covers what is generally known as a single rotary. In other words it has a

single compression point, so that if the machine is equipped with 16 punches and dies one revolution of the die table produces 16 tablets. Machines of this type are illustrated.

A rotary machine in addition to greater production possesses some advantages over a single punch machine as follows:

Some materials that do not flow into the dies very well on a single punch machine very often feed much better on a rotary, as the granulation is in motion while in the feed frame. In addition over filling the die cavity and scraping off the excess produces a more uniform die fill.

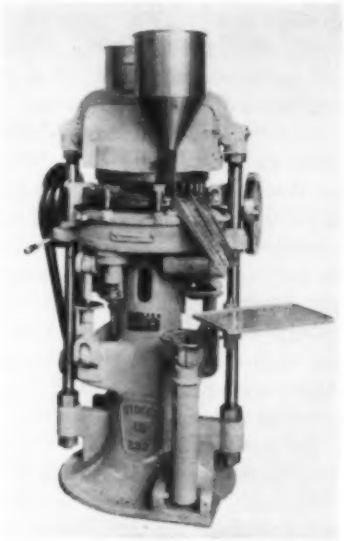
A rotary machine compresses the tablet by a squeezing action from both sides, whereas the single punch compresses by a sharp blow on the upper surface only.

Ejection is also smoother. I have seen many cases where lubrication was restricted for specific reasons and tablets which laminated on a single punch machine, due to friction on the die walls, worked quite well on a rotary.

As the demand for pharmaceutical tablets increased greater production per unit became necessary and thus the design of the double rotary type machine.

These machines accomplish the complete operating

cycle in 180° instead of 360°, as in the case of the single rotaries. They only have one set of punches and dies, usually 27 or 33 pairs, depending on the size



of the tablets. They are equipped with two feed frames, two hoppers and two sets of cams and pressure rolls.

After completing the first cycle and producing a tablet the same punches and die pass under a second feed frame located at the back of the die table and received another charge of granulation, which is subsequently compressed. The tablets produced in the first cycle are directed to the periphery of the die table where they ride around the remaining 180° and come off at the front of the machine along with those compressed in the second cycle.

Machines of this type are used on large batches and are capable of producing 1000 to 1500 tablets per minute.

If these types of machines were not available the prices of large volume items like aspirin, AP&C and similar types of tablets would be considerably higher than they are today.

Another method of increasing the production of tablet machines, is the use of multiple cavity dies, so that two and sometimes three tablets are produced per die. It has been my experience, however, that this approach is not always satisfactory. It depends to a certain extent on how the cavities are arranged, the size and type of granulation. On small tablets they work quite well, but on larger sizes they are not as dependable. Change over and set up time is considerably longer, also punch and die cost is greater than for a double rotary.

It is my hope that the above description of the basic types of tablet machines will prove helpful to the prospective purchaser of this equipment.

The deciding factors are—production requirements, size of tablets, shape of punches and dies, and pressure required to produce satisfactory tablets. The last item is very important. More than once I have been called

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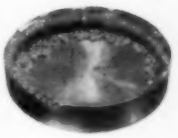

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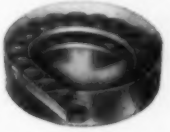

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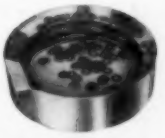

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into a plant to find out what was wrong, why was this part of the machine breaking and this part scoring, only to find that they were trying to make a four or five ton machine do a job that required a ten ton machine. You don't buy a one ton pick-up truck to haul three or four ton loads, but a three ton will always haul a ton. The same logic applies to tablet machines. However, I don't imply that you should always buy a heavy press, but I've seen quite a few who should have and didn't; thought they could save a few dollars—in the end they had to open up their pocketbooks and give in. They also had to take into account the time and money wasted in fooling around with the smaller press.

If you are contemplating slugging, my advice right

now is that you need a heavy duty machine. There is no use kidding yourself. That is if you want any kind of production. Slugging is a tough job and it requires plenty of pressure.

On a small scale you can get along by monkeying around with smaller diameter punches and dies, which increases the pressure per square inch applied to the slug while operating under the same total pressure.

However, when you reduce the diameter of the die you often run into trouble with the material bridging across the die cavity and you have to resort to mechanical means to overcome this trouble.

Another disadvantage of smaller diameter punches and dies is that the production is often reduced to such a point that the slugging operation becomes economically impractical.

(To be continued)

Halitosis

(Continued from page 399)

breath odor, after the ingestion of the vegetable, is due not only to contamination of the mouth by particles of garlic, but also, in part, to the absorption of the odoriferous substances from the intestinal tract into the blood, their transportation to the lung capillaries, and consequent excretion into the alveolar air, with a resulting fouling of the breath.

Alcoholic beverages produce breath odor in a similar manner. As pointed out by Haggard,[5] the odor of "whiskey" breath comes from the lungs and not from the mouth. For about 15 minutes after a drink the mouth stays moist and smells of the beverage. Further odor comes only when the alcohol is absorbed from the stomach and intestines into the blood and, via the circulation, is passed into the air of the lungs. This authority notes that even after one drink there is enough alcohol in the blood and breath so that for several hours it can be measured by the chemical tests employed in the determination of drunkenness.

Tobacco is another common cause of breath odor and smoking may contribute to oral irritation. Singularly enough, Morris and Read[6] found that smokers have a very low mouth odor other than that due to tobacco. Cigars produce the highest odor levels, while cigarette odors are most readily reduced to a low level. These workers found that tobacco odors were materially reduced by the antiseptic rinse used in their studies, but were not influenced by a water rinse.

Of interest in this connection is the preparation recommended by Cipes[7] for use against tobacco odor. This consists of:

Saccharin	**10 grains**
Thymol	**10 grains**
Cajeput oil	**5 minims**
Alcohol	**3 oz.**

Five to six drops of this fluid in half a glass of water is used as a mouth wash.

With the exceptions already noted, the breath, as it comes from the lungs, is pure and sweet, with only a "warm" and not unpleasant odor. It acquires its fetor from the mouth, the overwhelming majority of the breath odors coming from the mouth, tongue, teeth, gums and tonsils.[5]

This point is also emphasized in a brief discussion[4] in the *J.A.M.A.* in which it is noted that "The mouth is the most probable source of fetor oris." Dental decay and poorly cared for dentures are important factors in halitosis. Among the less obvious sources are such conditions as a low grade infection of the gums and the lingual papillae, a slight necrosis of the mucous membranes, and minute collections of food as well as numerous oral bacteria between the gums and teeth and in dental interspaces. It is pointed out that protein can become rather foul in a few hours and that meat fibers are frequent offenders if not removed.

In considering treatment of fetor oris, it is advised that cleansing of the mouth should be started by a dentist, with repeated check-ups. In the meantime, food should be removed from crevices by brushing, rinsing, dental floss or toothpicks at least once each day.

Haggard[5] has stressed that the task of overcoming mouth odors due to retained and putrified food is not an easy one. There is at present no certain measure for controlling the bacteria of the mouth but, as this authority points out, much can be done to reduce the material

upon which the bacteria act. The first step is the proper care, by a dentist of the decayed teeth that not only hold food particles but also may have an odor of their own. This, of course, is only the start. Next in order is the regular use of a toothbrush, dental floss and, if desired, a mouth wash, preferably after each meal.

The use of a dentifrice is, of course, an important phase of oral hygiene and the regular, thorough cleaning of artificial dentures is also essential in the prevention and treatment of halitosis. It has been observed[6] that a dentifrice used in the regular manner is capable of materially reducing mouth and breath odors. This, it was found, is not a masking effect, since the odor of the dentifrice flavor disappeared in less than one-half hour.

It has long been known that the mechanical removal of debris from the tongue can also help considerably in some cases of halitosis. The tongue, like the teeth, may collect and hold food particles and secretions until they putrify. This is most liable to happen if the tongue is inflamed or "furred" during constipation, menstruation, a hangover, a head cold, or from mouth breathing. In the old days, a tongue scraper was commonly used to remove the malodorous materials. Nowadays, however, the same purpose can be served by using a soft toothbrush on the tongue and rinsing with a suitable mouth wash.[5]

Various infectious conditions of the oral tissues, such as pyorrhea and Vincent's angina or trench mouth, may be responsible for the mouth odors. Such infections are treated as required by the dentist or the physician. Smith[16] mentions that odorous conditions arising from the mouth may be benefited by the use of an oxidizer, such as potassium permanganate. Raw surfaces, he suggests, may be cleansed with cotton-tipped applicators dipped into solution of hydrogen peroxide diluted with three or four parts of warm water. Rather interesting is the recommendation made by Prinz[17] some years ago for treating resistant odors arising from the nasopharynx. He suggested the smoking of cigarettes which were lightly impregnated with a solution of one part of thymol in six parts of alcohol.

Much more recent is the advice[4] that the tone of the mucous membrane may be improved by the use of a dilute mouth wash containing zinc chloride. This may perhaps be preceded by a mouth wash containing peroxide or perborate.

As is already evident, mouth washes play useful roles in both the prevention and treatment of halitosis. It must not be forgotten, however, that mouth washes serve chiefly as adjuncts to other measures. Except perhaps for certain temporary conditions, mouth washes cannot be expected to remove or greatly influence the cause of the halitosis.

The value of mouth washes or, more specifically, of an antiseptic mouth wash ("Listerine") in halitosis has been studied in some detail by Morris and Read.[6] Among their basic findings was the observation that 65 per cent of a miscellaneous group of individuals

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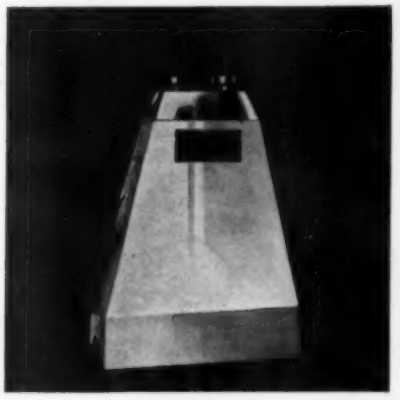

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of both sexes and various ages and economic levels had mouth and breath odors that could be classed above the halitosis level. It was also found that plain water rinses are without effect on these mouth and breath odors.

They reported, however, that the antiseptic mouth wash reduced these odors to a low level from which no significant recovery took place within three hours. This action, they stated, is not a masking effect, because the odor of the rinse disappeared in 20 minutes. Moreover, the effect of this solution was prolonged significantly beyond that obtained either with prophylaxis or with a dentifrice. This antiseptic rinse was also efficient in removing the odors caused by the overnight stagnation of saliva in the mouth. As was previously mentioned, tobacco odors were materially reduced by this wash.

Of course many formulas are available for making mouth washes that will help to combat halitosis. A check[18] of the literature readily reveals that there are compositions to meet a wide range of preferences with respect to taste, odor and other characteristics. These range from the simple, but often effective solutions of sodium chloride or sodium bicarbonate (or a mixture of the two) in water to the well rounded, but more complex commercial products.

For example, a simple preparation that is recommended by the American Dental Association[19] as a mouth rinse on the basis of its mechanical action may be made from:

Sodium chloride	**2.0 Gm.**
Sodium bicarbonate	**1.0 Gm.**
Amaranth solution	**2.0 cc.**
Peppermint water, to make	**240.0 cc.**

In contrast is the composition of the commercial product used in the studies made by Morris and Read.[6] This antiseptic mouth wash is said to consist of a saturated 27 per cent aqueous alcohol solution of thymol, menthol, eucalyptol and methyl salicylate with benzoic acid and boric acid. A formula for a product of this type has been given[20] as follows:

Boric acid	**50.000 Gm.**
Benzoic acid	**1.000 Gm.**
Thymol	**1.000 Gm.**
Eucalyptol	**0.125.cc.**
Oil of peppermint	**0.500 cc.**
Oil of Wintergreen	**0.250 cc.**
Oil of Thyme	**0.100 cc.**
Grain alcohol	**250.000 cc.**
Water, to make	**1000.000 cc.**
Caramel	**sufficient**

Dissolve the boric acid in the water. All the other ingredients are dissolved in the alcohol and the two solutions are mixed. Color to a pale straw shade.

A popular type of mouth wash containing zinc chloride can be made along the lines suggested in the *Pharmaceutical Recipe Book*, which also provides data on a number of other kinds of oral rinses. The pleasant-tasting, slightly astringent mouth wash is made from:

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Zinc chloride	**1.0 Gm.**
Menthol	**0.5 Gm.**
Oil of cinnamon	**1.3 cc.**
Oil of clove	**0.5 cc.**
Solution of formaldehyde	**0.5 cc.**
Soluble saccharin	**0.4 Gm.**
Purified talc	**15.0 Gm.**
Alcohol	**45.0 cc.**
Solution of amaranth	**8.0 cc.**
Distilled water, to make	**1,000.0 cc.**

Dissolve the menthol and essential oils in the alcohol. Dissolve the zinc chloride and soluble saccharin in 800 cc. of water and then add the solution of amaranth. Add the formaldehyde solution and triturate with the talc. Filter through paper and add sufficient water to the filtrate to bring the volume to 1,000 cc. The product may be used full strength or diluted with two or three volumes of water.

Where a concentrated mouth wash is desired, the following formula, as given by Lascoff,[21] will serve as an illustration:

Salol	**5.000 parts**
Oil of peppermint	**1.000 part**
Oil of clove	**0.040 "**
Oil of fennel	**0.004 "**
Alcohol	**190.000 "**

During recent years, considerable attention has been focussed on the antibacterial action of the quaternary ammonium salts. Some of them are known to be potent deodorants. It is not surprising, therefore, that these substances should find a useful place in the formulation of mouth washes.[22]

Powders, to be dissolved in water to make the mouth wash, offer certain conveniences. Suitably flavored sodium perborate frequently forms the base of such products, as in the following combination:[23]

Sodium perborate	**99.17 per cent**
Thymol	**0.10 " "**
Menthol	**0.10 " "**
Methyl salicylate	**0.10 " "**
Eucalyptol	**0.50 " "**
Oil of clove	**0.03 " "**

Mix the flavors with a little alcohol and spray onto the perborate. Allow the alcohol to evaporate and package the powder at once.

Obviously, it is not always possible to have a mouth wash at hand to help combat breath odor or freshen the mouth. As has been pointed out in one authoritative health publication,[24] in a consideration of unpleasant breath, there are various commercial preparations that will temporarily "sweeten" the breath. These, it is said, may be employed four or five times a day without harm if they are not used in too concentrated form. It may also be helpful to use chewing gum or various aromatic confections to mask undesirable odors.

Obviously, some of these products belong in the realm

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of the confectioner rather than the pharmaceutical manufacturer. Nonetheless, standard texts, like those of Cipes,[7] carry formulas for making breath-perfuming lozenges or cachous. This authority on dental preparations offers the following typical procedure for making breath cachous or breath "sweeteners:"

Oil of peppermint	**4 dr.**
Oil of clove	**1½ dr.**
Mastic	**6 dr.**
Cascarilla	**6 dr.**
Orris root	**6 dr.**
Acacia	**1½ oz.**
Catechu	**2 oz.**
Extract of licorice	**20 oz.**
Water	**sufficient**

Boil the solid drugs, previously reduced to powdered form, with enough water to form a pasty mass, then add the liquids. When cooled to the proper consistency, roll and cut into the desired size or shape.

In his volume on perfume compounding, Poucher[25] also presents a number of "floral" cachous for perfuming the breath. These consist chiefly of mixtures of essential oils and other aromatic substances in bases of sugar and vegetable gums, like acacia or tragacanth. Considerably simpler than these old-fashioned and quite elaborate products are the breath lozenges described by Bennett.[20] Items of this sort may be made from:

Oil of peppermint	**1 part**
Powdered sugar	**100 parts**
Mucilage of acacia	**10 "**

Make into a mass and divide into lozenges of appropriate size (e.g. about one gram each).

A more recent trend is the use of rather concentrated breath perfuming agents in liquid form. A few drops of such a product on the tongue often suffices to impart a pleasing odor to the mouth. One such product ("Tips"), made by a pharmaceutical organization, consists apparently of perfuming agents in a vehicle of alcohol and propylene glycol. Another, more elegant product ("Mist") is distributed by a well-known cosmetic organization. A few drops of this liquid on the tongue or sprinkled on the toothbrush is said to dissipate odors from food, tobacco and alcohol and to sweeten and freshen the breath.

Another departure is the use of an inhaling device ("Breath-o-lator"). A special wafer for insertion in the chamber of this inhaler is described as containing a material capable of neutralizing breath odors arising from both the oral cavity and the respiratory tract. The neutralizing substance is drawn into the mouth by a deep breath or two and is exhaled through the nose.

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Naming a Pharmaceutical

(*Continued from page 403*)

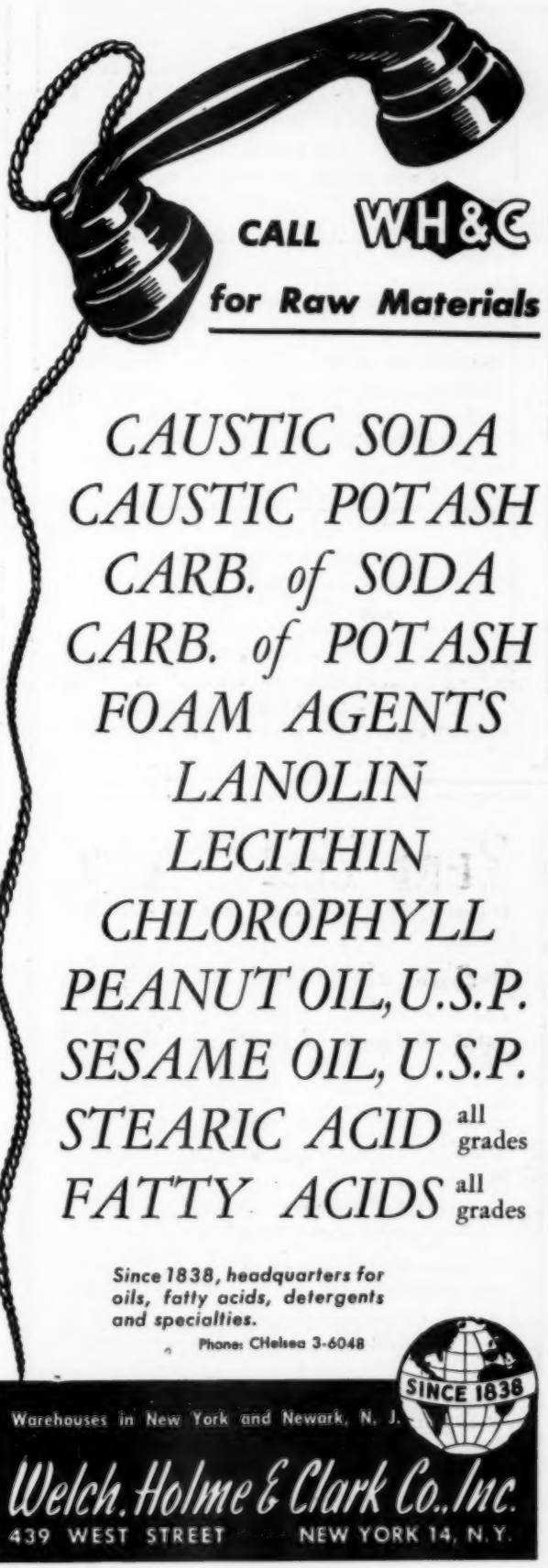
Thus, the character of our new product and the sales strategy which results from that character, will determine what type of a name to choose, whether the common or generic name, a simple non-exclusive descriptive name, or a unique, coined trade-mark. The first two types of names impose no special problem from the standpoint of "naming" alone, but the private trade-mark does.

Now let's look at some of the characteristics we would like to find in our ideal coined trade-mark: (1) It should be easy to pronounce. In fact, it would be better if it cannot be mispronounced. Often this is difficult to achieve; even such a simple trade-mark as our "Tedral" is often called "Teedral" or "Tedral". I've heard some more extreme instances of the name being really murdered. (2) Pronunciation should indicate the spelling of the name. In other words, it should be phonetic. (3) The ideal trade-mark should have no more than two syllables, although three or four syllable names may be adequate. Rarely is it wise to use a longer one. (4) It should be a name easy to remember. (5) It should be a name which is checked for meaning in foreign languages, to be sure that you don't unwittingly choose a profanity or obscenity in some language other than English, as your trade-mark. You may have heard, as I have, of instances in which a good coined name in English had a disastrous meaning in another language.

By tradition and by request of the A.M.A. Council on Pharmacy and Chemistry, the trade-mark should derive from the active ingredient or ingredients in the product. To accomplish this ideal trade-mark within the framework of a derivative name, is exceedingly difficult.

Now, how are you going to find this name? There are a good many procedures, but for what it may be worth, I can tell you a little bit about what we do when faced with this problem.

As soon as one of our products begins to emerge into the stage of clinical evaluation, a memorandum is sent to all executives, whether in sales, production, research, accounting, even down to the office boy, if possible, which describes the product, its function, what it is used for, and what it contains. On the basis of this



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information, we ask for as many suggested names as possible from as many of our staff as we can count upon to take the time to do a little thinking on this score. We, of course, include in this memorandum any outstanding names already registered in that particular field.

Then the suggested names are collated and listed alphabetically. Sometimes 50 or 100 names are involved.

Then a search is made through the Red Book, the Blue Book, and the Combined A.D.M.A.—A.P.M.A. Trade-Mark Registration Lists, for names which obviously conflict. Usually we find that all the good names among those suggested had been anticipated exactly or so closely that we must eliminate them from consideration.

If we are lucky, after all the obvious conflicts are resolved, there remain about six moderately desirable names which don't appear to have any serious conflict. At this stage we attempt to select the best four names of the lot for search.

Probably all of you are familiar with the fact that there are organizations which make a specialty of "searching" prospective trade-marks for possible conflict. This is an extensive search through records of the patent office and a good many trade sources. We arrange for such a search through our patent and trade-mark attorneys; when they receive the report back, they render an opinion as to whether or not any of the suggested trade-marks are registrable in the United States Patent Office, and whether any conflict too closely with established names. It has been our experience that quite often all of the names we have searched fall into this non-registrable category, but occasionally one or two do come through. If there are more than one available, we choose the best and at the earliest possible moment introduce the product into interstate commerce for a legal sale so that registration in the patent office may be begun.

Since patent office publication and the official granting of a registration often take today upwards of twelve months, it is important that the search and the legal opinion as to the availability and registrability of a suggested trade-mark be carefully undertaken. Ordinarily, you will want to introduce the new product generally into interstate commerce under your chosen name considerably before final action is taken by the patent office. Thus, if you are not to be disappointed, the steps of search and evaluation by competent legal counsel should be carefully undertaken.

Now obviously when registering a name, one should be familiar with the rules of the patent office and of the Council on Pharmacy and Chemistry of the A.M.A., if it is likely that Council acceptance will ever be a factor. There are many rules of the patent office with which you should be familiar, but rather than get into any extended legal discussion of these rules, I would emphasize just one caution: A name which might be alleged to be descriptive of the product is not registrable in the patent office and on occasion such names have

been registered and the registration has been subsequently cancelled. This happened in one of our products known as "B-Scorbic," a combination of Vitamins B_1 and C. Ultimately, we lost registration of the name because the patent office decided that it was descriptive of the product.

The Council of the A.M.A. also has a number of rules about names with which it would be well to be familiar. The most important one probably, from our standpoint, is that the name should not suggest the disease, the pathological conditions, or the therapeutic indications of the product. In other words, "Orthogynol" could never have been accepted by the Council if it had been called "Preg-no."

Another consideration which may arise at some time is whether to use a name which is not registrable, even though it is a good trade-mark. Now this is something that is perfectly possible to do. The name may be satisfactory as a trade-mark and you may have many of the same rights under common law in the mark even though it is not registrable in the United States Patent office.

As opposed to this, the advantages of patent office registration include prima facie evidence of ownership and much easier-re-registration in foreign countries.

Occasionally, after you have begun to use your mark, it may become necessary to consider a change because of some unknown conflict or because of a change of attitude on the part of the F.D.A., the F.T.C., or the A.M.A. Council. If and when this change of name becomes necessary, consider some slight modification in your existing name which may make it acceptable. You may be familiar with the current change Geigy is making by shifting "Parpanit" to "Panparnit". This is being accomplished through the simple device of indicating on advertisements the relationship between the two names in a graphic sort of a way.

Perhaps if you have to change your name, you can consider doing the same sort of thing that "Petrolagar" did when the name underwent a metamorphosis to "Petrogalar." And "Agarol" to Agoral". Often in the event a change is necessary, you will find some device such as this which will permit the "guts" of the original name to be retained, and still satisfy the objections raised to it.

Occasionally, a more drastic change is necessary and when this happens, it is obviously going to be necessary to carry both names for awhile.

One of the most important things to emphasize in any consideration of trade-marks is the importance of protecting your name once you have it. It is a lot easier than many of us believe to lose your rights to a trade-mark through neglect or inadvertence. Even DuPont lost such a valuable trade-mark as "Cellophane" because the mark became generic.

To protect your registered trade-mark, be sure to use the R in a circle or the "Reg. U. S. Pat. Off." on your label and in appropriate places in your advertising; but don't use these insignia on an unregistered but good

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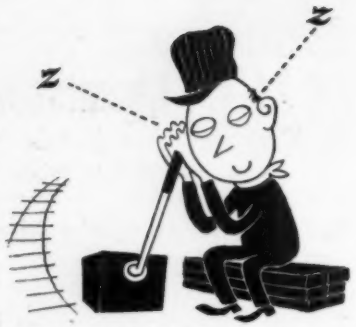

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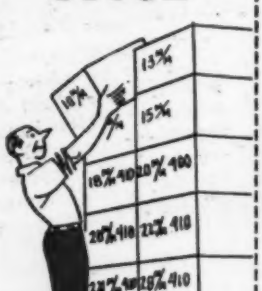

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trade-mark or you may lose your common-law rights to it. Be sure to relate your trade-mark to a generic name for the product; and one of the most important steps to be taken is to be sure that some responsible member of your legal staff, or your own organization, follows the Combined A.D.M.A.-A.P.M.A. Trake-Mark Bulletins regularly to be sure that no name too close to yours is proposed for use; and above all else, follow the U. S. Patent Office Gazette to be sure that a proposed mark does not infringe yours. Unless these protective steps are carefully undertaken, you may find yourself with a great deal of money invested in promotion of a product with a good trade-mark and then find that you have lost your exclusive rights to that name through some type of neglect on your part. This should be covered thoroughly with your trade-mark counsel.

In summary, let the character of your product and the sales strategy planned determine the type of a name you are going to choose, whether common, descriptive, or invented.

Secondly, if you decide to use an invented trade-mark, register it in the patent office, if possible, and at as early a date as practicable. Make just as sure as you can in advance that the mark is registrable before you begin to use it. Make sure that the name is easy to remember, to pronounce, and to spell.

Finally, when you get your trade-mark, be sure to protect it. Don't let it become generic. Don't let other marks be registered too close to yours. Use the R in the circle, or the "Reg. U. S. Pat. Off.".

It is hard to over-emphasize the importance of a good name to marketing in our field. Shakespeare can say in effect that "That which we call a rose, by an other name would smell as sweet," but I am sure that the name "Feosol"—in many respects an ideal trade-mark —has helped our good friends at Smith, Kline & French, sell more than one carload of Ferrous Sulfate Tablets. Don't underestimate the importance of a good name to your products.

Stability Test Methods

(*Continued from page 407*)

in the packaging of a lot of aromatic spirits of ammonia, it was found that no matter what type of cap or liner was used, the bottle would not stay tight when exposed to a temperature of 140°F. On examination, the bottle was found to have a thin neck. When a bottle with a smooth, thick top was used, the same cap and liner held the material without difficulty. A peculiar source of deterioration sometimes encountered may prove hard to trace. If bottles are stored in a damp place for some months they may grow a peculiar greasy organism on the inside of the bottle which is not removed by blowing or washing and which is transparent when wet. This will often cause a cloudy precipitate in the finished package, as it is slowly removed. Since the growth is not present in all bottles, it may escape detection when the empties are examined and it is not

easy to detect by filling line inspection. Now that glass bottles are easier to procure, this problem will undoubtedly increase, as the glass manufacturer stores large runs of stock bottles.

Incidentally, water washing of bottles may lead to dilution of the finished formula and deterioration that is not caught by any preliminary laboratory procedure.

Real grief is often encountered when export items are custom manufactured in the country of sale. Such foreign operators sometimes seem to use a formula and manufacturing directions as a point of departure. The difficulties are not helped any by translation. A formula translated from English to Spanish and thence to Portuguese may not end up quite the same.

Sales and Science

(*Continued from page 405*)

Close

When you scientists lose your patience with the sales department, I emplore you to keep in mind the "official" description of the modern sales manager. He is a man with brains who is willing to beat them out. He must have a personality that pleases, persuades, prods and produces. I am sure this is an accurate and proper description of the modern sales manager because it was originated by a sales manager.

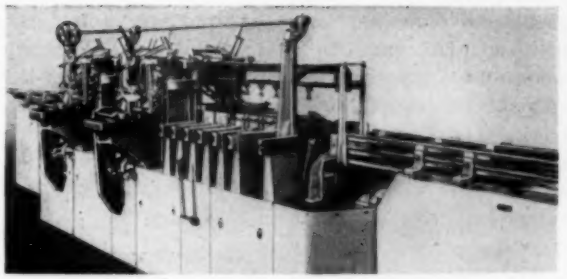
Protective Cosmetics

(*Continued from page 401*)

adhered to the film. The popularity of these preparations has fallen off a good deal since the number of women employed at such tasks had declined.

Blustery weather brings in its wake a heavy percentage of chapped lips as well as chapped hands. The best known of these products are usually packaged in a lipstick type of tube so that it could be applied in much the same fashion as is the lipstick. Its function is to prevent moisture from causing the lips to chap and the best method of such prevention seems to be to keep moisture away from the lips. The pomade therefore consists of a soft unctuous lipoid mixture which imparts a rather thin film to the lips on application. The more common lipsick, though not formulated for such a function, is capable of a good deal of water repellent propensities. A preparation whose sole purpose is to behave as a protective agency, however, performs this function in a much more satisfactory manner because it is a rather invisible film and need not have the desirable limpid soft appearance associated with the lipstick. The higher melting point film possible with a protective anti-chap preparation is capable of a greater degree of adherence for that reason.

Most of the well-known foundation creams and make-up bases, though not primarily intended for this purpose, also exert a certain amount of protection against weather. Most of these preparations are characterized by their ability to form a film which



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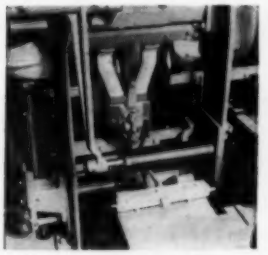
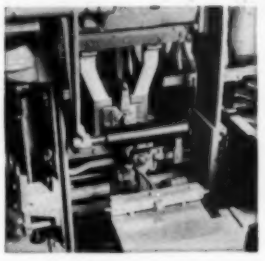
● Here are the pickers on their way down to the container, showing body and medallion labels. Gum box, label holder and transfer roll removed so you can see what happens.

● Here the Vacuum Gripfinger contacts the closed pickers, sandwiching the label. Note the bellows in the lower left hand corner. Its action produces the vacuum.





● Here at the container itself the pickers are opening for gumming the entire surface of the labels on them, coating adhesive over the label surfaces while vacuum holds the labels securely and precisely for *controlled* registration on the container.

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should be somewhat water resistant to protect the make-up. This same characteristic enables it to behave as a protective agency. This is particularly true of the cream cake preparations and of the liquid make-up bases. The fact that these preparations are in such universal use probably accounts for the concentration of protective preparations directed towards the hands rather than to the face which is exposed to about the same degree.

The treatment of the protective preparations is intended as a resume of the substances used rather than to explain how they may be incorporated in any type of vehicle. The substances referred to are being augmented by new raw materials at frequent intervals which may increase the efficiency of the protective agency or enhance its adhesiveness to the skin after application.

Management Forum

(Continued from page 441)

Colton Rotary

A new high speed Rotary Tablet Press capable of producing up to 800 tablets per minute is announced by Arthur Colton Company, Division of Snyder Tool & Engineering Company, Detroit, Michigan.

The new unit, known as the Colton No. 216, is a 16-punch rotary with an average production speed of 650 tablets per minute. However, on small tablets, such as pheno-barbital, it has been run consistantly at approximately 800 tablets per minute. A range of operating speeds to suit different types of tablet material is provided by variable speed drive.

The Colton No. 216 can be quickly and economically set up to produce tablets up to 5/8" diameter and 11/16" cell. Maximum pressure is 6000 lbs. Uniformly accurate tablet weight is assured by a micrometer cell adjustment. In operation, the dies are overfilled and leveled off to proper cell depth.

The rotary head is driven by heat treated spiral gears and helical pinion; all gears are precision shaved, materially reducing power consumption. In addition, the use of a high speed drive countershaft eliminates the need for an extra weight flywheel and permits the use of a standard 1 H.P., 1800 rpm. motor. Power is transmitted to the head through a twin-disc clutch.

An automatic, adjustable excess pressure release protects machine elements against accidental damage. The pressure release setting, the lower pressure roll adjustment, and the clutch lever are within easy reach of the operator. Operation is so simple that unskilled help is satisfactory with minimum experience and training.

All working parts are readily accessible. The main drive shaft is located on the center line of the vertical axis of the base, and below the machine head and the rotary head is completely guarded because no opening for the head drive is necessary. Tablet material cannot

(Continued on page 488)

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New Products and New Packages (*Continued from page 416*)

attractive kit contains complexion Wash, Strawberry Cream Mask, Hormone Cream, Eye Cream and Special Formula Lotion. Another new combination package contains Quinlan's Hormone Cream and Quinlan's Hormone Oil presented pyramid fashion in transparent plastic cones.

HELENA RUBINSTEIN'S new packages, designed for Mothers' Day promotion, are called Mailbox and Perfume Compact Bouquet. Mailbox contains a two ounce bottle of Command Performance Eau de Parfum, a Command Performance Compact and a crimson satin sachet scented with that fragrance, attractively combined in a white "mailbox" with scarlet and gold trim. The Perfume Compact Bouquet, two perfume compacts containing solid fragrance in Apple Blossom and White Magnolia scents, is presented in plastic with emphasis of various shades of green.

SHARP & DOHME announces the national release of Sterile Soluton Neotresamide, a triple sulfonamide solution for intravenous use. Another new Sharp & Dohme development appears in Cadroson Tablets, a dietary supplement useful in the management of pregnancy and lactation, and the prevention of dental caries.

SCHENLEY LABORATORIES, INC., has developed Sedamyl (acetylbromdiethylacetylcarbamid) for use as a sedative during times of emotional and nervous tension such as hysteria, apprehension, menopause, menstruation, preoperative fear and anxiety. Provided sedation without hypnosis, the patient retains full control of his mental and physical faculties.

The SCHERING CORPORATION announces the availability of testosterone propionate, U. S. P., in sesame oil, in the Oreton Vial 100 mg. per cc. This high dosage form is intended as a convenience for intramuscular administration of large amounts of the hormone where indicated.

Schering also has added (Prenolon pregnenolone in aqueous suspension) and Prenolon Acetate pregnenolone acetate in oil) to its line. These preparations are indicated for treatment of rheumatic arthritis.

SCHIAPARELLI has added a new Baby-size package for Shocking perfume which is an exact copy of the original dressmaker bottle under glass. The new creation will be available for Mothers' Day gift promotion.

SHIEFFELIN & CO. has announced Be-Dodec (pure crystalline vitamin B_{12}), and Tropigon (chlorionic gonadotropin) as additions to its line of pharmaceutical preparations.

E. R. SQUIBB & SONS are now supplying to the medical profession Rubrafolin capsules which contain Rubramin (Squibb vitamin B_{12}) and folic acid. These capsules are useful in the oral treatment of all common types of anemia.

The STANDARD PHARMACEUTICAL CO., is now marketing an improved wet dressing under the name Presto-Boro in tablet and powder forms. The wet dressing tablets and powder are prepared so that a Burow's Solution N. F. can be made from them. The solution is non-toxic when applied locally and is accurate and stable.

WINTHROP-STEARNS INC., has released to the market a new nutrition treatment for infants and children under the name Pluravit Drops. This liquid form of Pluravit Multiple Vitamin pellets.

Fine Chemicals — BPC

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OXYQUINOLIN SULPHATE
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PHENYL ACETIC ACID
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They are offered in various lengths and are readily adjustable for height.

Rollers may be specified for any spacing (1 to 5 Rollers per foot) either above or below the channel frame.

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• MORE DURABLE THAN BELT TYPE.
• PERMANENT OR PORTABLE BASE.

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Management Forum

(Continued from page 486)

sift down into the drive mechanism. Punches are completely shielded against dust by an easily removable cover. The frame is a rugged semi-steel casting assuring permanent rigidity and accurate alignment of operating parts with resulting accuracy in operation.

Dumper

For unloading barrels, boxes, drums into tanks and mixers, the Colson Equipment & Supply Co., 1315 Willow, Los Angeles 13 offers the Cesco Dumper. This is a portable elevator which enables the operator to elevate and dump a container into a high receptacle.

Electric Tiering Truck

Lyon-Raymond announces their entry into the Electric Power Lift Truck field with their new and different Electric Tiering Truck—a truck with unusual maneuverability. This new and unconventional electric tiering truck will tier from narrower aisles and in areas that were not previously possible with the conventional power tiering trucks. For example, in warehouses where it has previously required ten to twelve foot aisles for tiering 48″ x 48″ pallet loads, the Lyon-Raymond SpaceMaker will tier at right angles from a six foot aisle. In a congested manufacturing department where box type skids had never been previously tiered due to lack of aisle space 24″ x 36″ box skids have been right angle tiered from a five foot aisle.

This Electric Tiering Truck really makes space and was correctly named the SpaceMaker. It will not only increase useable floor and air space by narrowing of aisles but will make possible the tiering of skid and pallet loads in areas where it has been considered impractical. Among these are upper floors in multistory buildings where the floor and elevator capacities were insufficient for the use of the conventional heavier power trucks.

The increased use of racks for storage of skid loads and some pallet loads has given added importance to a tiering truck such as this SpaceMaker for tiering into these racks from narrow aisles.

The manufacturer claims it to be the lightest, the shortest, and the most maneuverable of any powered tiering truck now on the market. At present it is furnished in three different types: 1 Platform type—for tiering skids; 2. Fork type—for tiering single face pallets; 3. Straddle type—for tiering two faced pallets.

Lyon-Raymond already are well known as pioneers in the development of many types of material handling equipment. This latest development of an Electric Tiering Truck represents several years of research and experimentation. Although it is just being introduced to the market, the SpaceMaker has been subjected to extensive tests in large manufacturing plants and warehouses with marked success and enthusiastic reception. For additional information write to Lyon-Raymond Corporation 14166 Madison Street, Greene, N. Y.

READERS' QUESTIONS

FOAMING BATH POWDER: I read with considerable interest Mr. Hilfer's article on bath preparations, which appeared in the January 1950 issue of Drug & Cosmetic Industry. I am most anxious to know if you can supply with formulas for foaming baths, both powder and liquid. Chicago.

It seems to me that Hilfer's article contained considerable information along these lines. However, a powder for foaming baths can be made on the following basis:

Sodium bicarbonate (dry)	**30.0 per cent**
Tartaric acid (dry)	**17.0 " "**
Borax (dry)	**5.0 " "**
Sodium lauryl sulfate	**47.0 " "**
Perfume	**1.0 " "**

Liquid foaming bath preparations can be made by incorporating suitable quantity of a synthetic detergent, such as one of the alkyl aryl sulfonates, in a proportion of about 5 per cent in water. This may be suitably perfumed and colored as desired.

HAIR LACQUER: We would appreciate a formula for a high grade hair lacquer employing a partially solubilized hair shellac. Springfield.

A product of this sort can be made along the following lines:

Shellac, water soluble	**15**
Gum benzoin tincture	**10**
Alcohol	**10**
Water	**65**

GREEN COLOR FOR MINERAL OIL: I am desirous of coloring mineral oil with a natural green color. Can you make any suggestion? New Rochelle.

An oil-soluble grade of chlorophyll makes a suitable coloring agent for mineral oil.

MASSAGE CREAM: I am interested in obtaining a basic formula for a massage cream, one that can be used in toning tired muscles and for stimulating local circulation. San Francisco.

There are various methods for making creams useful for massage purposes. One fairly simple preparation calls for the use of

Lanolin	**4.0**
Beeswax	**30.0**
Ceresin	**30.0**
Liquid paraffin	**45.0**
Borax	**6.0**
Water	**45.0**
Perfume	**sufficient**

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Hobart and Read 80 qt. Vertical Mixers.
Knapp E adju. wraparound and spot Labeler, 1 gal. (jars with ears).
Burt Automatic Wraparound Labeler.
Colton 4PF Worm type Cream Filler.
Ertel and Republic Filters.
Ertel 10 head S.A. Vacuum Filler.
Ertel Hand Vacuum Filler.
Filler Machine late models 1, 2, 4 and 8 head Stainless Steel Piston Fillers.
Pony M and MX Labelrites.
Ermold & World Semi & Fully Auto. Rotary and Straightaway Labelers.
Stokes and Colton Late Style Rotary Tablet Machines.
F. J. Stokes DDS2 23-punch Rotary Tablet Machine.
Triangle G2C, A60A Electri Pak Fillers.
Package Machinery FA, FA2, FAQ and FA2Q Auto. Wrappers.
Hayssen 3-7, Knapp JS and Scandia SSU1 Auto. Cellophane Wrappers.
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